7TH

LATIN AMERICA

FOOD AND AGRICULTURE OFFICERS CONFERENCE

TABLE OF CONTENTS

SEVENTH LATIN AMERICA

REGIONAL FOOD AND AGRICULTURE OFFICERS' CONFERENCE

Page No.

A. Attending Delegates 1
B. Agenda 2
C. Introductory Speeches
I. Introductory Remarks by C. F. Deyoe, Director DTICA 6
II. Address Delivered by Sr. Manuel Casanueva, Minister of Agriculture, Chile 7
III. Address Delivered by The Honorable Walter Howe, Ambassador of the United States to Chile 11
IV. Welcome by General William Raley, Director, USOM/Chile 14
V. Response by S. N. McIntosh, Assistant Director O/FOOD, ICA/W 15
VI. "Agricultural Economic Development", by Virgilio Mannarelli, Director General of Agriculture, Chile 17

D. Conference Sessions
I. Food for Peace Panel 25
II. Current Developments in U.S. Agriculture and in ICA Agricultural Programs 25
III. Personnel and Program Changes 26
IV. Operations - Policies Problems 30
V. Field Trip Report 33
VI. Criteria for Development of Projects in Agriculture Within the Framework of a Social Development Program 36
VII. Coordination and Integration of Agricultural Teaching, Research, and Extension as a Means of Realizing Country Program Objectives 37

E. Committee Reports
I. Recommendations and Resolutions 39
II. Regional Activities (Seminars & Workshops) 42

F. Summary Statements, by W. S. Middaugh, ICA/W 46

Page No.

G. Appendix I - "Memorandum of Understanding Between College and Ministry on Cooperative Program of Extension and Home Economics 1

H. Appendix II - Country Reports

I. Argentina 1
II. Bolivia 6
III. Brazil 12
IV. British Honduras 18
V. Chile 19
VI. Colombia 23
VII. Costa Rica 37
VIII. Ecuador 40
IX. El Salvador 43
X. Guatemala 46
XI. Haiti 54
XII. Honduras 57
XIII. Panama 62
XIV. Paraguay 66
XV. Peru 69
XVI. Surinam 71
XVII. West Indies 74

ATTENDING DELEGATES

ARGENTINA	Louis Franke
BOLIVIA	E. C. Reichard
BRAZIL	R. H. Warrens
COLOMBIA	L. E. Peterson C. B. Seckinger
COSTA RICA	R. G. Ellyson
CHILE	C. F. Deyoe C. B. Padgett M. L. Cox
ECUADOR	M. J. Lobell
EL SALVADOR	C. J. Spalding
GUATEMALA	C. K. Pearse
HAITI	R. L. Winters
BRIT. HONDURAS	E. P. Astle
HONDURAS	A. L. Brown
ICA	S. N. McIntosh W. S. Middaugh O. A. Bauman
NICARAGUA	L. E. Barber
PANAMA	E. K. Rambo
PARAGUAY	B. H. Mayfield
PERU	G. V. Bowers
SURINAM	J. P. Keenan
WEST INDIES	D. G. Curry

AGENDA

LATIN AMERICA REGIONAL FOOD AND AGRICULTURE CONFERENCE

Santiago, Chile February 27 - March 4, 1961

Monday, February 27

Morning

10:00 - 11:00		Chairman: C. F. Deyoe, USOM/Chile
	Welcome -	C. F. Deyoe, USOM/Chile Manuel Casanueva, Minister of Agriculture, Chile Walter Howe, U.S. Ambassador to Chile William Riley, Director USOM/Chile
	Response -	S. N. McIntosh, Assistant Director, Office of Food and Agriculture, ICA/W
11:00 - 11:30	Announcements -	O. A. Bauman, ICA/W; C. F. Deyoe, USOM/Chile
11:30 - 12:00	Agriculture Economic Development in Chile,	Virgilio Mannarelli, Director of Agriculture, Chile

Afternoon

1:30 - 3:00	Food for Peace Panel -	James Symington, Robert Tyson, Harlan Bramble, Arthur Kevorkian, Stephan Rausbenbush, and Doublas Crawford.
3:00 - 5:00		Chairman: G. V. Bowers, USOM/Peru
	Current Developments in U.S. Agriculture and in ICA Agricultural Programs -	S. N. McIntosh, ICA/W

Tuesday, February 28

Morning

9:00 - 12:00 — Chairman: B. H. Mayfield, USOM/Paraguay

Personnel and Program Changes - W. S. Middaugh, ICA/W

Afternoon

2:00 - 5:00 — Operations - Policies Problems

Panel: E. C. Reichard, USOM/Bolivia - Chairman
A. L. Brown, USOM/Honduras
M. J. Lobell, USOM/Ecuador
E. P. Astle, USOM/British Honduras
L. J. Franke, USOM/ Argentina

Wednesday, March 1

An all-day field trip to visit the Fundo of Sr. Bernardo Schmutzer and the Agricultural School "Pascual Baburizza."

Thursday, March 2

Morning

9:00 - 12:00 — Criteria for Development of Projects in Agriculture Within the Framework of a Social Development Program

Panel: L. E. Peterson, USOM/Colombia - Chairman
R. L. Winters, USOM/Haiti
C. J. Spalding, USOM/El Salvador
E. C. Reichard, USOM/Bolivia
L. Barber, USOM/Nicaragua

Thursday, March 2 (cont'd)

Afternoon — Chairman: R. G. Ellyson, USOM/Costa Rica

2:00 - 5:00 **Executive Session**

1. Committee Sessions

   a) Formulation of General Recommendations by Food and Agriculture Officers

   b) Recommendations - Seminars, Workshops, etc.

2. Individual Country Program Reviews (Currently with Committee Sessions)

Friday, March 3

Morning

9:00 - 12:00 **Coordination and Integration of Agricultural Teaching, Research, and Extension as a Means of Realizing Country Program Objectives**

Panel: R. H. Warrens, USOM/Brazil - Chairman
E. K. Rambo, USOM/Panama
D. G. Curry, USOM/West Indies
C. K. Pearse, USOM/Guatemala
J. P. Keenan, USOM/Surinam

Afternoon — Chairman: R. L. Winters, USOM/Haiti

2:00 - 5:00 **Executive Session**

1. Committee Sessions

2. Individual Country Program Reviews

Saturday, March 4

Morning — Chairman: C. J. Spalding, USOM/El Salvador

9:00 - 12:00 — Committee Reports -a) G. V. Bowers, USOM/Peru
B. H. Mayfield, USOM/Paraguay

b) E. K. Rambo, USOM/Panama
E. C. Reichard, USOM/Bolivia

Summary Statements - W. S. Middaugh, ICA/W

COMMITTEE (EXECUTIVE SESSIONS)

March 2 - 3, 1961

A. Formulation of General Recommendations

G. V. Bowers, Co-Chairman, USOM/Peru
B. H. Mayfield, Co-Chairman, USOM/Paraguay

R. H. Warrens, USOM/Brazil	R.L.Winters, USOM/Haiti	L. E. Peterson, USOM/Colombia	C.J.Spalding, USOM/El Salvador
A.L.Brown, USOM/Honduras	E.P. Astle, USOM/Br.Honduras	L.E.Barber, USOM/Nicaragua	L.J. Franke, USOM/Argentina

B. Recommendations - Seminars, Workshops, etc.

E. K. Rambo, Co-Chairman, USOM/Panama
E. C. Reichard, Co-Chairman, USOM/Bolivia

C.K. Pearse, USOM/Guatemala	R.G. Ellyson, USOM/Costa Rica	C.F. Deyoe, USOM/Chile	M.J. Lobell, USOM/Ecuador
J.P. Keenan, USOM/Surinam	D.G. Curry, USOM/West Indies	V.J. PraSisto, USOM/Paraguay	C. B. Seckinger, USOM/Colombia

INTRODUCTORY REMARKS BY CARROL DEYOE

DIRECTOR OF DTICA

Sr. Ministro, Mr. Ambassador, Director USOM, Officials O/Food, Washington, Delegates and guests:

It is indeed an honor for me to open this annual Latin American Food & Agriculture Conference and to be the first to welcome the Food and Agriculture officers of USOMs in Latin America to Chile. I know that you will find the same hospitality among the Chileans that you will meet during your brief stay in Santiago that I have enjoyed during the 2.1/2 years that I have lived in this fine country. I am confident that this is going to be a successful conference and I want to assure you that the services of the Agriculture Division of USOM/Chile are at your disposal at all times and will assist in every way possible to make it a fruitful meeting.

We are greatly honored this morning in having with us His Excellency, Manuel Casanueva, Minister of Agriculture. His Excellency returned to Santiago last evening following a trip to Magallanes where he presided in the opening of a livestock exhibition. I happen to know that his Excellency cut short his stay in Magallanes in order that he could be with us this morning. For this we are all extremely appreciative, Mr. Minister.

Those of us in the Agriculture Division consider ourselves especially fortunate in having a Minister of Agriculture with the high qualifications which Sr. Casanueva possesses. He is an Ingeniero Agronomo, with many years of experience in his profession, principally in the field. He is familiar with all aspects of agriculture in his country and in spite of his short tenure in office has developed a far reaching and effective program and agriculture policy for Chile agriculture. We have enjoyed the best of working relations with Sr. Casanueva and his staff in our Technical Assistance program for Chile. As a matter of fact, in my 15 years of experience in technical assistance in a total of six different countries I have never enjoyed better working relations that I find in Chile.

I take great pleasure at this time in presenting His Excellency, the Minister of Agriculture.

OPENING ADDRESS

Manuel Casanueva

Minister of Agriculture

Chile

An objective of human solidarity for achieving greater welfare and the conviction that adequate development of agricultural economy of a country makes prosperous and progressive people, gave birth to the program called Point IV of the Truman Plan.

The Technical Agreement for an Agricultural and Livestock Cooperative Program has been established in Chile since 1951, and as, in other countries, its benefits of a technical nature, interchange of ideas, realization of all agricultural aspects and the broadest cooperation, have been more than favourable.

It is a pleasure now for me to welcome the experts who have worked in other countries to achieve these purposes. I deem this meeting to be of great usefulness, in which you may consider the goals achieved, plan programs to be carried out, study methods and, above all, in such pleasant and beneficial human contact, get to know other men, other countries which is the beginning of understanding and friendship. I hope that during your stay in the country you will have pleasant experiences and that these meetings will be advantageous not only to Chile, who receives you warmly, but for the United States, for the countries in which you lend your assistance and also for yourselves.

I am also pleased, gentlemen, to greet cordially those who are remembered here with fondness, because, in the years that we worked and lived together, you left something of your ability, of your understanding of our problems and of your great human quality. I refer to Messrs. Lyall Peterson, Lloyd Barber, and Richard L. Winters.

I do not even need to mention Mr. Carrol F. Deyoe, who for several years has so wisely directed the Agricultural Program in Chile, and his collaborators, since they form a part, to put it that way, of our country and its farming activities and know our esteem and gratitude.

As an Agricultural Engineer and as Minister of Agriculture I cannot help but feel pleased to be among you experts in agricultural problems and to refer most briefly to our agriculture which, without doubt, does not differ much, in its fundamental design from the other countries in which each one is stationed.

Our desire is certainly to increase agricultural production and for this purpose we must apply adequate techniques of exploitation. We are pledged to do this with the valuable cooperation of the experts which the American Government has assigned. In our country - as in all countries which have not achieved a high economic development - there are evident diverse factors which are obstacles to intensive application of such techniques.

Basic scientific investigation in agricultural progress is one of the dearest aims of the Chilean Government in its program of farm development. The need for a higher level of preparation, general as well as specialized, of farmers is also evidently urgent.

It is also necessary to increase the number of specialized technicians who could make adequate and advantageous use of the instruments which modern science and technological advances have placed at the disposal of man to achieve the maximum and most rational utilization of natural resources.

These considerations point out the value and efficiency of training programs and agricultural extension or technical assistance carried out in Point IV as fundamental elements of a farm development policy, because through them it is possible to raise considerably the degree of preparation and skill of farmers, technicians and professionals.

In Chile, for many years, the State has concerned itself with problems of this nature and the Ministry of Agriculture, within its limited resources, has been able to carry out scientific investigation and direct technical assistance for the purpose of making fundamental changes in the basis of "work" on the farms.

Now there has been undertaken a Plan of Economic Development for ten years in which the policy of agricultural development has secure basis and goals which are to be achieved.

The system of soil and water conservation; agricultural investigation; production and selection of seed with high and dependable quality; adequate use of farm machinery; techniques for substantial improvement in exploitation of livestock; introduction of efficient norms of industrialization and commercialization of farm products; adoption of rational methods of rural administration; these are, among others, measures whose application in Chile and in Latin America are essential for complete and thorough development. They have priority in the aforementioned Plan.

The United States International Cooperation Administration has been efficiently aiding in the solution of the agricultural problems in Latin America, as in nations of other continents, and through the Operations Mission in Chile, it has facilitated and encouraged the adoption of such systems and practices by Chilean agriculturists.

Under the Basic Agreement for Technical Cooperation, and particularly the Technical Agreement whereby a Cooperative Program of Agriculture and Livestock is established and DTICA created, there has been a beneficial influence in the solution of the most serious problems which afflict agricultural and livestock exploitation in our country.

In close cooperation with Chilean governmental agencies, and especially with the Department of Agriculture Cooperation has to date accomplished an extremely useful work, taking up with efficiency and expeditiousness the most difficult agricultural and livestock problems of the country.

Concentrating attention primarily on a certain area of national territory, the programs of Technical Assistance were put into execution in the Province of Maule, Ñuble and Concepción, and constituted an actual demonstrative plan: "Plan Chillán". The success achieved has made possible the extension of these programs to other zones of the country, with the raising of these efforts to a national level.

The program of agricultural extension is efficiently aiding in the introduction of scientific methods in farm exploitation, increasing the ability of the farmers and obtaining a high degree of improvement in rural living conditions.

The Program of Soil and Water Conservation undertaken at the beginning of 1952, is carried out in the Provinces of Maule, Ñuble, Concepción, Bío-Bío, Malleco, and Cautin. The technical assistance given directly to farmers, has been the most serious attempt to retard soil erosion in Chile.

The efforts to put livestock explitation on more solid and rational basis merits particular mention.

The efforts to introduce rational industrialization and commercialization of farm products have also been very useful. The International Cooperation Administration has participated actively and efficiently in the realization of a plan for construction of slaughter houses and refrigerator plants, which, when completed will substantially change the systems of production and distribution of meat and other products.

Broad work in technical training and agricultural investigation has been carried out by the Chillán Agricultural Center in a coordinated effort with the Interamerican Technical Department of Agricultural Cooperation, the Ministry of Agriculture and the University of Concepción. Such efforts have aided in the development of special courses for farmers and technicians, establishment of a National Center of Farm Mechanization, and a program of agricultural investigation.

The aid which our country has received through this policy has made it possible to stimulate, to a great degree, the national program of farm and livestock development, provide such a program with the technical implements which are an essential requisite for success and, above all, place at the disposal of the country the experience and high specialization of foreign experts.

Finally, we know that every project and every plan requires technicians to carry them out, and the International Cooperation Administration, which provides the opportunity to train personnel of the Ministry of Agriculture in other countries by means of scholarships, and indirectly but not less important, the execution itself of technical assistance programs in the country, have been powerful aids in raising the level of technical ability of Chilean professionals and technicians, whereby we now hope to achieve the goals of the Farm Development Plan.

The Government recognizes and gives thanks for the valuable assistance of the American Government and people, and their experts in these programs appreciate the progress and benefits obtained from them. The decision to carry out the Plan of Economic Development will also require this aid and also that of technical assistance implied therein on a broadened and extended basis. I hope that, with mutual understanding and in the high ideals sought, there may be made the decisions which make these purposes possible.

I express the wish that the deliberations which are to be commenced among you, who are the highest personages of Point IV in Latin America, will reach valuable and important decisions for the happiness of the peoples of the United States and of this America. You will thus render decided assistance and aid to these ideals of peace, liberty, and human consideration, which are the heritage of your people and of ours.

Mr. Deyoe's presentation of Ambassador Howe:

We are honored to have with us this morning Ambassador Howe. Most of you do not need an introduction to him. Unfortunately for us, Ambassador Howe will be leaving Chile shortly and will be leaving many friends among the Chilenos, as well as among those of us in the USOM who have worked closely with him here. He has been most helpful to our agricultural program, particularly through his guidance and leadership. At this time we will hear from Ambassador Howe.

ADDRESS DELIVERED BY THE HONORABLE WALTER HOWE

AMBASSADOR OF THE UNITED STATES TO CHILE

Mr. Deyoe, Sr. Ministro:

It is a very real pleasure and privilege for me to be with you here this morning, and share in the welcome and in opening the session of these days of discussion which you are going to have together.

It has been my pleasure and privilege in the past to have worked with a number of you in the field of technical assistance in agriculture, during the past three years here in Chile and prior to that with some of you in Colombia for two years.

Those of us who have worked in Latin America to advance the range of agricultural technical assistance have had a close opportunity to study the needs and opportunities of this land and have come to the important conclusion that there is no single, easy, blue print solution for the problems that must be faced. At the same time, we in the Western Hemisphere can be proud because we are working together in the face of a tremendous opportunity and a challenge.

In the past few years, it has become evident to a number of the countries in Latin America and to their governments that the emphasis placed on industrial growth for the past 15 or 20 years has been to a substantial degree at the expense of agricultural development. This has been true for a variety of factors which differ in different countries, ranging from manipulated exchange rate to subsidies for various types of growth and to taxation. These countries have begun to realize that, looking ahead to future growth, there must be steps taken to correct that in-balance; that without giving up the impetus for further industrial growth and expansion, more attention must be paid to the whole field of agriculture and livestock; that the rapid growth in population must be kept in mind, making sure that production from the land increases sufficiently to support the growing industrial economy. It is obvious that the agricultural sector must continue to give its support to

industrial growth; without further industrial growth it will be impossible for the economy of many of these countries to absorb the personnel and the labor force that will be released from agriculture as modernization takes place.

Along with the growing realization in the countries themselves, we, in the United States, have come to realize that we need to re-think the forms and methods that can be used in providing assistance that these countries may absorb in their own programs of economic development. In the past, we have tended to feel that such assistance should be channelled into projects or programs clearly demonstrating a sufficient increase in income that would, in effect, pay for the project. We have begun to realize that there are certain sectors, perhaps many, where the investment of funds, whether local or foreign, cannot show direct profits, in the sense of a balance sheet which, after a few years, will provide the funds to amortize and pay off the loan or credit which has made the project possible; but does not necessarily indicate in which sector such investment may be essential for the economic growth of the country.

The meeting in Bogotá in September, considered some of these fields and, to a very real extent, marked the initiation of a new and very promising phase. We have recognized the part which we must play in this social and economic development and have assured the countries here of our willingness to participate. At the same time, the countries represented in the Act of Bogotá recognized their obligation to study necessary changes in their economic, social structures in order to provide for future development and make possible the productive absorption of such assistance as we might be able to give.

In working out this program on a day-to-day basis and from the point of view of the U.S., two very important things must be born in mind. One, that we are dealing with 20 different countries. They have certain problems in common, but perhaps there are greater differences than similarities. We tend too much in the United States to think generally of Latin America, and to think too little of Chile, Argentina, Brazil, Mexico, Venezuela, Colombia and the other Latin American countries individually. They represent a set of problems that cannot be solved or met with a single policy. You know it well already, but I think that it is something that we must bear in mind as we develop new guidelines and new horizons for channelling our assistance. Secondly, we must recognize that there is no simple, easy solution. There is much talk of land reform; there is no question in my mind that the problem of land tenenacy is an important factor to be considered in each country under the circumstances existing there. By the same token, a mere program of land division and colonization is not going to solve the problems in any one of these countries. In some it may be of more importance than in others, but with it there are all of the related problems of communications, marketing, storage, better land use, agricultural credit, education, all of which must be considered together. Even within the limited field of land tenancy we must define our objectives more clearly, perhaps, than has been done so far.

I have just read a doctoral dissertation which was loaned to me by a Chilean friend, written in 1955 by an American student of Economic Geography here in Chile. It is an intensive study of land division in a limited area to the

south of Santiago, between the Rivers Mapocho and Maipo. This study showed that in the area, since 1920, the number of land owners had increased from 33 to 660. This demonstrates substantial progress in land division with results which are certainly not conclusive but give food for thought. This process has resulted in better and more intensive land use with a factor increasing from one to, in some cases, 2 to 4. On the other hand, a disturbance has been created in the labor situation. In upsetting the old inquilino system there were some gains, there was more fluidity and more movement of labor, but there was also considerably more instability and fewer guarantees for the farm laborers of an assured livelihood over a period of time. There was a substantial increase in production by converting from grain and pasture with livestock to fruits, vegetables, vines, and poultry. But there again the writer raised the question as to whether this increase was in the products most badly needed - in bread grains, meat, milk and similar products. The area studied was small, but served to emphasize the need of studying objectives and recognizing that there are many roads to be followed.

I believe that the principal objectives of any of the governments in the hemisphere and of our own government are two-fold: One, to try to increase production to meet the needs of the growing populations in these countries and two, to raise the standard of living of rural population. This may be over-simplification, but I suspect those are the two basic objectives that need to be born in mind. Many of you are working on various aspects of these objectives. In the coming years it will be increasingly important that we know the facts, know the needs, and know the opportunities in a given situation before attempting a too rapid solution of the problems.

I hope that in our country, having recognized the need, will have the support and understanding of the public to carry forward this program of cooperation and assistance to the countries in Latin America, and to carry it forward even when immediate results are not shown. I trust that we will have the wisdom and judgement to proceed with flexibility, with understanding of traditional problems created by history, geography, population, and all the other factors in these countries.

As the Minister and Mr. Deyoe have said we have enjoyed relations not only of close professional cooperation, but I think I can say of warm friendship here in Chile.

As I approach my last few weeks here, leaving with many regrets, I take with me most profoundly this feeling of friendship, the ability to talk out problems together, to criticize each other if necessary, but with the feeling that we are working towards a common purpose, and that we can work together in friendship, frankness, and in trust of each other.

WELCOME BY GENERAL WILLIAM RILEY

Director USOM/Chile

Gentlemen:

I am happy to add my warm welcome to those of the Ambassador and the Minister of Agriculture. We are glad that you chose Santiago for your meeting. All of us in this Mission, I am sure, will do all we can to make your brief stay with us a pleasant one.

As Mission Director, I was happy to hear what Mr. Casanueva had to say about our agricultural program, about the people who work in it now, and about those of you who worked in it in the past. It is a source of satisfaction to know that the Minister thinks our program is doing what our governments intended it to do. It is also good to hear from him that our people enjoy the esteem and friendship of those who work with them. I thank him for his kind words and for his encouragement.

I am sure that all of you feel that attaining sound agriculture development is absolutely essential to the total development and the social advancement of all Latin American countries. I am in agreement. That is why I think that your work in appraising past performances and in shaping future programs is so important.

I do not doubt that your work here will be fruitful; that it will be of benefit to each of you, personally, to ICA, and to the countries you are serving. Let me repeat, we are happy to have you with us.

RESPONSE BY S. N. McINTOSH

Asst. Director, Office of Food and Agriculture

ICA/W

General Riley and co-workers:

I hope there is some way that we can convey our sincere appreciation to the Ambassador and to the Minister of Agriculture for their very fine remarks, as well as your own sir. I have the pleasure of conveying them personally to you, but in the absence of the Ambassador and the Minister, I hope that in some way our appreciation can be extended to these two gentlemen.

I would like to recapitulate on three or four of the points which the Minister made in such a fine way. I think we need not take time, General Riley, to express the pleasure we are enjoying here. It started to far as my own experience was concerned, incidentally my first visit to Chile, when I arrived at the Aduana. I wish that our experience going through Miami, we might anticipate, would be as pleasant as the one coming through the Aduana here. The weather has been everything you have said. The fruits and vegetables and the attitude of the people, the steaks, etc; I can see that you have very strong attractions to pull staff down here.

We appreciated the fact that the Minister has a busy schedule and he adjusted his schedule so that he could be here this morning and also we appreciate the fact that Ministers have other obligations and have to leave meetings of this sort.

I would like to say a word sir, to you, as to the importance that we attach to this meeting. Food and Agriculture people that are here on the firing line, trying to get a job done, and I'm sure from your own experience that you would subscribe to the idea that some times they think that Washington personnel have forgotten them and are not giving them any support, or in some cases in fact are throwing road blocks in their way. So we think it highly important that we get together to clear the air and to discuss mutual problems and to give such guidance as we can, admitting that most of the guidance has to come from the field operations.

I was particularly pleased at the fine tribute that the Minister paid to the workers that we have had in Chile. Obviously, you cannot name an entire staff, but it was significant to me that he picked out individuals that have covered a considerabl span of years in our Chilean operations. This is a tribute to the men that were named specifically; a tribute also to the program that has been carried on, because if the program had been too much of a handicap, I suspect that there might have been less mention of the individuals. I was particularly pleased with the emphasis and the broad visions evidenced by the Minister's remarks as to the importance of a well balanced program in agriculture. You will recall that he mentioned research, extension, training (abroad as well as in Chile), which meant to me that this is a gentleman who is thinking in terms of the long pull, the welfare of Chile in a scientific age

of agriculture, and recognition of the fact that the only way this could be accomplished is through this broad program of training and development that he so well outlined.

The Ambassador in his few remarks, it seems to me, gave a very penetrating analysis of some of the problems that we are up against. We need to recognize, and I think we do recognize, the complexity of the job we are undertaking. That agrarian reform is only one phase of this program, and I particularly want to tell the Ambassador that this is our point of view on this thing. In spite of the emphasis that has been put on agrarian reform through the recent developments in Latin America and through the consultation in Bogotá and the final emergence of the Act of Bogotá, this does not mean that we are going to drop all the fine programs that we have been working on, that we believe are basic and fundamental, and devote our sole attention to agrarian reform. It probably means that more emphasis is going to be put on agrarian reform, but we hope that we will be able to carry the more basic parts of the programs that are already underway in the various countries, along with the added emphasis on agrarian reform.

I was also pleased at his statement with regard to the fact that Latin America is a very large area which is divided into individual countries with their respective problems, their own approaches, their own ethic backgrounds, and so on. We recognize this and I think, Mr. Waters, you can anticipate that the people in Washington are not going to be as happy about this report on agrarian reform as most of the men who attended the conference are, because we did not lay out a hard and fast blueprint that could be applied to every country in Latin America. We did not do that deliberately because we believe it cannot be done on that basis. We think this has to be done on a country by country basis. I hope that, as you circulate on the higher levels, you will take advantage of the opportunities as they occur to you, to point out to the people in Washington that this was a very significant conference in terms of what happened in the meetings that may not appear in the reports at all.

I do not think I need to take a lot more time. Again I would repeat, General Riley, that I hope that our very sincere expression of appreciation can somehow or other be related to the Ambassador and the Minister, as well as to yourself.

Three aspects of Conference sessions.

FIELD TRIP

1

2

1.- Mr. Schmutzer farm near Los Andes.
2.- Lo Valledor Slaughterhouse.
3.- Santa Teresa Packing Plant.

3

5

4

6

4,5 and 6.- Lunch and entertainment at Pascual Baburizza Agricultural School.

PROGRAM AND POLICY OF AGRICULTURAL DEVELOPMENT FOR CHILE

by Virgilio Mannarelli

Director General of Agriculture - Chile

The Government of Chile is interested in the overall harmonious development of all sectors of the national economy. To this end, a complete program of economic development has been planned for the country. A fundamental part of this program is the development of agriculture, since the possibility of financing and carrying out industrial development and the housing programs for the next ten years depends upon a decreased outlay of foreign currency for food imports; a substantial increase in exports of agricultural products; an elevation of nutritional standards for the population and a greater distribution of income within the farming sector. This last, together with educational training programs to be carried out by the government, will incorporate the greater part of the rural population into effective consumers of industrial products and services. This aspect is very important, since the rural sector constitutes about 40% of the country's total population.

To attain these objectives, the Government has developed an agrarian policy which considers all factors affecting agricultural production and marketing. This policy is designed to bring about necessary structural changes within the agricultural sector through proper and adequate utilization of farm lands, man-power and capital. The agrarian policie which will be applied shall consider the country's requirements for agrarian reform within a framework of democracy, while relating it to the degree of institutional and social evolution now attained by the country.

In other words, it is desired to obtain the necessary readjustment of factors influencing agricultural production in order to increase the efficiency of the productive process; to increase the total physical production by at least 50% during the next decade; to attain a greater degree of social welfare and a higher standard of living for the population without contributing to inflation or unemployment.

During recent years various attempts have been made to increase agricultural production to the capacity necessary for meeting the country's needs by the application of unilateral measures which were uncoordinated and sporadic. This resulted in a lack of adjustment of the agricultural sector to the country's general economy and a lag in agricultural production due, largely, to the flow of capital to non-agricultural activities which, due to the inflationary process, were more profitable.

In view of these facts, the Government's agrarian policy aims at maintaining an adequate and constant relationship between controlled agricultural credit and production costs. This relationship, rationally administered constitutes strong production incentives and favors the progressive farmer while tending to displace those who refuse to evolutioniz despite the favorable economic policies and the technical assistance provided to the farming community by the government.

Furthermore, the government considers that the proper coordination of the activities of CORFO (Development Corporation), Banco del Estado (State Bank), Empresa de Comercio

Agrícola (Agricultural Commerce Industry), Caja de Colonización Agrícola (Agricultural Colonization Bank), Agricultural Research and Development Office, Public Works Ministry, Land & Colonization Ministry and the universities, is an essential factor in its policy of development of agricultural production in order to complement the technical support of the Ministry of Agriculture in this field.

With regard to the physical increase in agricultural production, the Government is applying the following specific measures:

a) Policy of physical production costs:

During recent years state control of prices and commerce has centered chiefly and directly on the level of overall prices of consumer goods and commercialization of elements for production which contribute largely to the direct costs of agricultural products. The physical consumer elements of greatest importance in this respect, both as to the cash outlay they represent and the improvement they represent in the aspect of productivity, are: fertilizers, seeds, concentrates and other foods for animals; vaccines, pesticides, and agricultural machinery and replacement parts.

The Government has taken adequate measures toward lowering the prices of fertilizer through subsidies. Also, the importation of agricultural machinery has been eased and Congress has been requested to consider measures destined to reduce importation costs on fertilizers, seeds, insecticides, fungicides, herbicides, vaccines, etc. Furthermore, the Ministry of Agriculture is undertaking all necessary control measures to insure that the farmer receives good quality fertilizers, concentrates for animal food, pesticides, etc.

On the other hand, with the seed certification programs carried out through the Ministry of Agriculture and the seed multiplication attained through the Consejo de Fomento e Investigación Agrícola and CORFO, it is becoming possible to assure the farmer of adequate supplies of good quality seeds.

b) Policy for capitalization and agricultural credit:

The inflationary phase suffered by the country during recent decades resulted in the disappearance of agricultural medium and long term loans.

This in turn meant shorter repayment terms, and a consequent scarcity of loans for capitalization, —an important factor in the promotion of productivity— as represented by loans for improvement; i.e., increasing cattle herds, mechanization of farming enterprices, and real estate loans for building, improvements and plantations.

Under the circumstances, and in view of the new policy of stabilization, it has been possible to establish, through CORFO and the Banco del Estado, a system of loans for agricultural purposes, on terms which coincide with agricultural cycles and provides for technical review by the Ministry of Agriculture as a basis for granting loans. The Ministry of Agriculture also furnishes a strict control of funds loaned out to farmers.

Both CORFO and the Banco del Estado pay special attention to medium and long term loans for livestock improvement programs. This should be significant from both the social and financial aspect since the population would be supplied with sufficient meat

at reasonable prices. Also, the outlay of foreign currency for importing such merchandise should decrease and finally cease altogether. With this object in mind, lines of credit have been created for the wide-scale establishment of artificial pastures, under the guidance and technical assistance of the Ministry of Agriculture and aims towards a substantial increase of production per hectare of meat, milk and wool at low prices.

Furthermore, special credits have been established for improvement of cattle and other livestock through importation of 40,000 heifers and brood stock. Credits will also be continued for hog improvement, poultry breeding, etc., in order to rapidly increase the production of meat and eggs. This in turn, will tend to offset present protein deficiencies in to-day's diet. The Government will later, through CORFO, present a request for credit to the International Bank in order to substantially increase loans for artificia pastures and for augmenting cattle herds.

With regard to agricultural machinery, under special authorization from the Government, the Chilean Development Corporation will resume charge of the agricultural mechanization program. Generous lines of credit have been established with most manufacturers of agricultural machinery both in United States and in Europe and which give Chilean farmers the opportunity to increase their productivity by the use of basic farming tools. Such measure have now been adopted because the process of agricultural mechanization suffered considerable setbacks in recent years. In accordance with a Government decree, the CORFO (Development Corporation) has been empowered to utilize foreign credits up to US$ 10,000,000.

Together with these credits, long term loans have been established for farm buildings; stables, sheds, etc., at low rates of interest with priority rating for those farm lands affected by recent earthquakes or floods.

These new loan policies will enable national agricultural production to attain the degree of capitalization required by modern agricultural enterprises of high productivity. Such a capitalization program could not have been carried out during the long inflationary process which affected our economy during recent decades and brought about the gradual economic starvation of our farms. This situation was largely due to the investment of capital in other activities since profits in agriculture were subject to the disproportion of high production costs against low prices of agricultural products. This situation contributed greatly to the disappearance of medium and long-term agricultural credit.

The Agricultural Research and Development Councel, using agricultural surplus funds, has been extending loans under the Dairy Improvement Law, for the establishment of milk processing plants and the building of slaughterhouses. The boost given milk productio amounts to about 231,000,000 liters during the last 15 years.

It should be expressly mentioned here that, under the leadership of the Ministry of Agriculture, studies are being made through the CONFIN, the CORFO and the Banco del Estado to solve the problem of establishing special credits for small scale farmers and to be supervised by technicians from the Ministry of Agriculture. Such programs have been established lately in pilot areas where there are groups of small land holders. The DTICA has effectively collaborated in these programs with technicians and funds. Such programs, it is hoped, will tend to upgrade the economic and social standards of the low income rural population.

The Ministry of Agriculture, assisted by DTICA, has elaborated a system for supervised loans destined to serve some 10,000 small farmers during the next 3 years.

c) Policy of prices and commercialization:

Faced with the need to harness inflation, the Government established a policy aimed at the stabilization of agricultural prices. The degree of success attained by the anti-inflationary campaign has confirmed the importance of this measure. However, our Government is aware of the, often times, extreme disparity between the prices paid by the consumer and those received by the farmer for the same article. Numerous studies have been prepared and plans made to solve this problem. The reasons staples such as meat, fruit and vegetables are overpriced have been ascertained and the conclusion reached that commercialization margins for such products are too ample. Their prices bear no relation with the charges made for services by the commercial sector. The Government is therefore taking steps to rationalize the commercialization of these foodstuffs by building modern slaughterhouses and freezing-plants, low-cost wholesale markets and supermarkets, and by improving roads and highways in the farming districts.

The Empresa de Comercio Agrícola will build a chain of warehouses and grain elevators in order to regulate the demand and supply of grain, thus, safeguarding the minimum price to the farmers and avoiding overprices and speculation.

In order to reach the above mentioned goals, the Government plans to make any investments which, in support of the agricultural assistance programs, it may deem necessary during the next decade.

Such investments are estimated as follows:

a) Construction and completion of milk processing plants, slaughterhouses, wholesale and retail markets (supermarkets), warehouses and grain elevators, freezing plants, etc., totalling an overall investment of about 11,510,000 escudos and US$11,090,000 over the next few years.

b) Transportation vehicles, standard and refrigerated: for a total investment of 19,312,000 escudos and US$31,800,000.

c) Tax policy:

In a modern taxation system; the levying of taxes in agriculture should constitute one of the most effective tools toward assuring an adequate utilization of the soil because of the scope and the direct effect of the taxation. With this in mind, the Government proposes to apply appropriate legislation which taxes farm lands on the basis of their value plus a predetermined coefficient based on the degree of their productivity as assessed by technicians. Such coefficient would increase year by year for as long as the land is not being used to its full capacity. This would imply a rational re-evaluation of farm lands to maintain the balance between the assessed value and their potential. Together with enforcement of this new measure, existing land taxes would be proportionately decreased.

d) Foreign trade policy:

During recent years the country's import-export policy has considered agricultural exports as surplus over and above the domestic needs, and imports as

a means of normalizing short supplies. Inadequate distribution of these, in actual practice, brought about a depression in prices for agricultural products. Export of such goods accordingly fell off despite excellent market possibilities abroad. On the other hand, indiscriminate importations discouraged the home producer, especially as regards production of livestock which is fundamental basis for a sound and stable agrarian policy.

The Government is therefore making every effort to establish appropriate legislation, credit lines and other measures to encourage increase of exports, especially fruits, wines, dairy products, seafoods and forest products. Programs for fruit growing are being planned by the Ministry of Agriculture and CORFO and the Special United Nations Fund has been approached by both agencies with presentations of extensive projects in forestry and fisheries' development.

The policy of agricultural imports will be handled by the Ministries of Agriculture and Economy and Agricultural Societies throughout the country.

The above outlined policy of foreign trade will, in general, be applied by the Government as a permanent measure, without abrupt changes or modifications in view of the pressing need to stimulate long term investments for development of the export trade in fruits, wines, agricultural products, poultry, etc. The program for agricultural development planned by the Ministry of Agriculture and CORFO contemplates, for the next ten years, an increase of 166% in fruit exports; 190% in wines; 115% in onions; 50 to 70% in legumes, 75% in wool and 4,900% in eggs. Plans are being studied for large-scale exportation of forage seeds and potatoes. The Ministry of Agriculture and CORFO have made preliminary studies for the establishment of the necessary lines of credit to stimulate these exportations.

As regards the impact which the establishment of a Common Latin American Market might have on our national agriculture, it should be stated that every precaution has been taken by the participating countries in order to avoid any violent dislocation of domestic economies. Considering the advantages for production of diverse exportables in the various countries, the gradual economic implementation which is planned should serve to allay any concern to agriculture.

The measures which the Government plans to enforce towards greater productive efficiency and commercialization in the field of agricultural development, with the consequent decrease in production costs and improvement in quality of products should in the future, permit our country to participate advantageously in inter-Latin American trade.

e) Irrigation policy:

Through the Ministry of Public Works, the Government plans to establish a program which incorporates 350,000 additional hectares of irrigated lands to those already existing, and improves irrigation practices on 600,000 hectares more. For some years CORFO has been perfecting plans to increase irrigated lands by means of loans to finance necessary irrigation works. During 1960,

CORFO invested about 1,000,000 escudos for this purpose. It has been planned to increase this amount for the year 1961. These increased funds will be invested in works which will permit a much wider distribution of the irrigation waters such as overnight storage dams, levelling of lands, etc.

On the other hand, the Ministry and CORFO are implementing programs for construction of dams and reservoirs on the farm lands,as well as providing technical assistance and advice in modern irrigation methods and proper utilization of irrigation water.

The irrigation program for the next ten years considers an investment of 92,822,000 escudos and US$4,300,000.

f) Policy for Technical Assistance:

The technical level on which the productive process of our national agriculture is being carried out could be raised considerably. There are great possibilities for the lowering of production costs through the increase of centralized production and by more proper utilization of production factors and modern farming methods. A fundamental basis for progress in this aspect is agricultural research. The Ministry of Agriculture is carrying out agricultural research projects with the assistance of the Rockefeller Foundation and the collaboration of the University of Chile, Catholic University of Santiago, the Concepción University and Austral University of Valdivia. Such research is showing valuable results, since we have already achieved new productive and sturdy varieties in wheat, conr, forage, rice, lentils and sunflower. Furthermore, the Ministry of Agriculture is organizing an experimental farm in Cautín for the purpose of carrying out research work in livestock.

The Ministry of Agriculture is decentralizing its technical services and is creating 5 regional offices to direct the technical assistance programs in the field in collaboration with DTICA, FAO and OEA and especially in those provinces devastated by earthquakes and floods.

Another step of immense significance to the country at large is the creation of areas for the conservation of soil and water. The intent is to carry out conservation programs under the direct guidance of the Ministry of Agriculture. These will be closely related to the reforestation and forest-conservation programs sponsored by the Ministry through government tree nurseries which are at present producing some 10,000,000 seedlings per year. This figure is expected to triple in the near future. A further measure will be the establishment of an efficient forest-warden service and the issuance of a Forest Protection Law S. The Ministry of Agriculture and CORFO have presented to the Special United Nations Fund, for its consideration, a complete program for practical research on forest husbandry and the full utilization of forest biproducts.

g) Policy for agricultural colonization:

This aspect has,very determinably, been approached by the Government who has decreed a comprehensive set of laws containing provisions for the adequate

financing of the Land & Colonization Office and the rational execution of overall plans for colonization. This will gradually solve the problem of the smallholder and upgrade his now, low standard of living.

h) In view of the low living standards of the country laborer, the Government has shown special interest in improving rural dwellings. At the same time, the Ministry of Agriculture is completing studies for reasonable participation of the worker in agricultural enterprises with the object of increasing the productivity of rural manpower.

Attempts are also being made to raise the technical, social and nutritional standards of the rural laborer. This will be accomplished jointly by the Ministry of Education through the agricultural schools; the Ministry of Agriculture through special extension and training programs for rural youth (4-H Clubs) and Home Educators, and the various private organizations such as the Institute for Rural Education, the Dolores Valdés Covarrubias Foundation, and others.

Nutritional deficiencies

The measures applied by the Government for improvement of livestock and agricultural production have, as their principal objective, the betterment of the nutritional standards of the country's population. There is urgent need of increasing the per capita consumption of milk in at least 81%, of meat and fish in 34% and eggs 18%.

The dietary deficiency is aggravated by the fact that the demand for food has been increasing year by year at a higher rate than has agricultural production, which, apart from constituting an inflationary factor of first order, contributes to the problem of the under-nutrition prevalent among the greater massess of the population.

It is desired to remedy this situation within the frame work of the agricultural development program as planned by the Ministry of Agriculture and CORFO. This aims at satisfying domestic requirements and the increase of the volume for exports. For this purpose, it will be necessary, during the period 1960-1968, to increase the overall production of milk in 92%, of meat 65%, eggs 40%, onions 60%, barley 60%, legumes between 40 and 110%, fruit 67% and wines 25%. Oleaginous products should be increased by 72% for sunflower and 249% for rape.

All forage crops should be increased as much as possible. Silage, corn and artificial pastures should be increased by, at least, 52%.

During the same period we will attempt to increase wheat production by, at least, 25%; sugar beets by 113%.

The production targets indicated above have been estimated on the basis of future needs in accordance with population trends, consumption needs, minimum dietary requirements and the country's production potential. It must be remembered, however, that such targets may need readjusting in line with changes in trends, with innovations in agricultural techniques or by the new vistas which may be opened up by the Latin American Common Market.

It may be stated that the indicated increases in production can be achieved without making any significant change in the existing arable acreage. Such increases can follow naturally on a rational utilization of existing farm lands and the substitution of some 50% of natural pastures by artificial pastures or other crops and by application of modern techniques, a wider use of fertilizer, improved management of pastures and animal husbandry and the expeditious practical application by farmers of all progressive measures evolved from the agricultural reseach carried out by the Ministry of Agriculture and the universities.

A comprehensive program for cattle improvement holds high priority in the National Program for Agricultural Development. It is estimated that some 50 or 60 million dollars will be invested in this project over the indicated period.

This program will be presented to the International Bank during the coming month. Its implementation considers the incorporation of 700,000 hectares into artificial pastures and a considerable increase in livestock numbers.

The program will be put into practice under the direct supervision of the Ministry of Agriculture. The assistance which DTICA is lending this Ministry is a vital factor in the successful implementation of the program, especially as regards livestock, health and sanitation, dairy improvement, cattle fattening, forage cultivation, etc.

DTICA's activities were spread over a wider territory during the past year. More specifically, they were extended to the southern cattle lands which were stricken by the May 1960 earthquakes. This increased activity has been warmly welcomed by the farmers who have shown lively interest in learning and applying improved production techniques in their work.

The National Program for Economic Improvement planned by the Government for the next ten years exemplifies an extraordinary spirit of coordination and rationalization on the part of the State. Together with the monetary stabilization achieved during the past two years, it will permit a steady and effective improvement in the populations standards of living while helping to make the country's economy less vulnerable to the fluctuations of the foreign copper market. This will be offset by the diversity of agricultural exports contemplated by the program, such as fruits, vegetables, wines, etc. At the same time, it will become possible to restrict the importation of foodstuffs to a minimum until home production rises to an adequate level, thus, releasing larger quantities of currency for importation of capital goods.

It may be seen from the foregoing that agricultural and cattle improvement has been assigned a fundamental role within this Program. Thus the Ministry of Agriculture, in which DTICA is a valuable tool, is today more important than ever, since it is responsible for an essential part of the National Program for Economic Development.

FOOD FOR PEACE PANEL

The Food for Peace Panel headed by Mr. James Symington included Mr. Robert Tyson, Mr. Harlan Bramble, Mr. Arthur Kevorkian, Dr. Stephen Ausbenbush, and Mr. Douglas Crawford.

Mr. Symington explained the purpose of the panel and requested the aid of the F & A Officers in providing information to the panel regarding past PL 480 operations and feasibility of additional programs.

Many pertinent questions were asked by the Food and Agriculture Officers. These were answered as clearly as possible by members of the panel within the limitations imposed by a new and not well developed set of guidelines. Each F & A Officer gave a short statement on how food might be used in each of their host countries.

CURRENT DEVELOPMENTS IN U. S. AGRICULTURE AND IN ICA AGRICULTURAL PROGRAMS

S. N. McIntosh, Asst. Director, Office of Food and Agriculture, ICA/W

Mr. McIntosh transmitted a message from Mr. E. D. White, Director, Office of Food and Agriculture, ICA/W indicating several factors to be included when evaluating the USOM agriculture program and the performance of personnel.

A brief accounting of the present status of agriculture in the U. S. and current developments with regard to ICA participation in foreign agricultural programs was given. Effective USOM agriculture program planning is dependant upon the ability of the Food and Agriculture Officer to identify within the total country program those segments which will most effectively contribute to the success and which will, as a USOM agricultural program, include activities that are complementary and supportive in nature. There is a need for better and more effective overall program planning. More thought should be given to the total program rather than to individual projects. The development of the USOM agriculture program is the responsibility of the Food and Agriculture Officer. These responsibilities are distinct and separate from those of the Program Office who coordinates and assembles the various activities of the USOM Divisions into a total country program. The two should not be confused. Methods to be employed in the implementation of the program may vary from country to country but should be such that it will most effectively meet program needs and both short and long term objectives.

PERSONNEL AND PROGRAM CHANGES

W. S. Middaugh, ICA/W

The Fourth Food and Agriculture Evaluation Panel rated 688 agricultural employees who had been overseas 18 months or more. Some of the points emphasized in the Evaluation Panel's Report were: It is not necessary to leave the technical field and go into administration positions to gain a promotion; promotion is based on performance and not on position. The F & A Officer should be either the rater or the reviewer for every agricultural technician and he has responsibility for a careful job of this important function. Additionally the F & A Officer should personally go over the report and provide guidance and assistance to each person rated, to assist in the development of the individual and correction of faults indicated in the report. The rater and reviewer should be clear-cut on recommendations for promotions and avoid conditional recommendations such as "promote when shifted to another job". The failure to submit an efficiency report is an injustice to the employee. Strict adherence to the six-month rule has resulted in some employees not receiving any rating during the fiscal year. Definitions and interpretations of the five efficiency levels should be amplified by additional of the following:

1. Not usable - immediate separation

2. Usable, but marginal - separate when better employee available

3. Satisfactory - promotable under certain circumstances

4. Superior - promotable on a selective basis, mark for development

5. Excellent - promotable, develop for greater responsibility.

The Panel strongly recommended that plus and minus signs be permitted in the final over-all ratings but not in item ratings. In evaluating 688 employees the Panel made the following recommendations for personnel actions:

Promotions 105
Training 82
Job reassignments 47
Conversions from limited to FSR 115
Retention in limited service 175
Separations 24

In addition, the Panel rated 32 employees as marginal, 255 as promising and 19 as very promising.

Promotion into FSR-1, 2 and 3 will be delayed because of imbalance in the staffing pattern. ICA/W is working on upgrading positions so as to bring about a balance between the number of positions by grades and the number of employees with corresponding personal grade. As soon as this is accomplished the promotions

can be effective. In the meantime promotion action is being taken for the lower grades.

The questions raised and the answers amplified many phases of the rating procedure.. In addition, S.N. McIntosh and C. J. Spalding, who have served on the recent Panels, indicated that the system was basically sound and definitely more fair than previous systems.

Staffing

The most important element in connection with obtaining technicians when needed is to SPAR the positions as far in advance as possible. A minimum of six months lead time is needed and as much as 9 to 12 months is desirable. Anticipated vacancies are picked up at least 6 months in advance for reassignment purposes. This is necessary in order to allow for clearances, home leave, annual leave and travel time between posts. Additional 16 weeks may have to be allowed for language training.

If a position is to be filled by recruitment which is necessary in 20 to 30% of the positions it is more likely to take 9-12 months before the technician is on the job as an effective employee. Therefore it is clearly evident that SPARs for new position or change in position should be submitted earlier than has been the practice. SPARs for new FY 62 positions should have been submitted before this, if desired, in July 1962 . If SPARs have not been submitted already for FY 62 positions, it is desirable to get them in immediately.

Food and Agriculture Officers can give assistance to our efforts to complete early reassignments by insisting on staff members making prompt decisions on acceptance of proposed assignments. Avoid the postponement of decision until they reach ICA/W. It is undesirable to have them shop for a position after reaching the U.S. It cuts short the available time for Mission and country clearance and may result in the employee being placed on LWOP if he has procrastinated in his decision making.

In an effort to speed up recruitment time O/Food is nominating an alternate candidate. Both are carried along in processing against the same job until one actually EODs or "falls out" because of medical or other reasons. As soon as a candidate is definitely sure for the position, the alternate is shifted to another similar position. Considerable saving of time can be effected under this procedure.

The place of contracts in the ICA program was discussed and reference was made to M.O. 1241.1 and 1241.2. Contracts are not to be used for recruitment purposes or to provide substitutes for direct hire personnel. Contract personnel are not to be used in policy making positions or in a supervisory function over direct-hire personnel. Some clearly identifiable, self-contained activities that call for team functioning with backstopping of an institution in the U.S. that specializes in performing the same activities in the U.S., can be performed in a superior manner by contracting. The additional cost of the contract under such circumstances may be justified. The F & A Division or the Servicio should not contact individuals or institutions in the U.S. regarding employment

or contracting. ICA has an understanding with the land grant universities and colleges to go through established channels and to clear with designated contact people before approaching an individual. Furthermore it is undesirable for 50 elements of ICA to be recruiting for agricultural technicians from the same sources in the U.S. and thereby compete with each other.

Attention was called to the performance reports of contractors and the evaluation called for in M.O. 1241.1 and 1241.2. More attention needs to be paid to the M.O. and the coding specified. These codes have a real purpose and should be used as intended. Projects should be developed so that they relate to the code. This system has a world-wide basis and facilitates our work. Decision as to who has the real responsibility for the project provides one of the basis for coding. There are a number of "99" projects because the decision was not made as to primary and principal responsibility. If need for and economic payment of a project is based in agriculture, then the project should be coded agriculture. Both in the USOM and in ICA/W assistance of other offices may be necessary and request in accordance with established procedure.

The programs in Latin America and Africa are receiving special attention and are in for considerable expansion and reorientation. Social and economic development in Latin America is expected to provide new assistance that will differ in type and magnitude from what has been the history of the program. Imaginative and more advanced planning is required. Planning should be on the basis of what needs to be done. Adjustments can be made to fund and other limitations when known by implementing segments of the planned program.

The effect on the staffing is expected to be an increase of technicians to provide the technical assistance necessarily associated with the social and economic development aid allocated. Other programs such as PL 480 in implementing the Food for Peace Program, may have additional personnel. Currently some PL 480 personnel have been authorized for selected countries. This personnel will be backstopped by O/Food which will participate in the selection and training and will be responsible for reassignment. They will be coded agriculture but may function in the Program Office or elsewhere, depending upon where the PL 480 function has been located. Increased attention should be given to PL 480 functions by the F & A Divisions as it is of necessity closely related to the other functions of the F & A Divisions..

Increased activities of international agencies are evident. FAO with its ETAP and UN Special Fund projects will experience a large increase. OAS has the prospect of similar growth. The need for coordination and cooperation to avoid duplication and conflict is multiplied as the programs expand.

Papers were distributed and brief attention called to:

1. The 100th Anniversary of the Morrill Act during the academic year 1961-62. The land-grant colleges are planning some unusual opportunities for high-level participant training programs as a part of the Centennial program.

2. A preliminary statement for discussion and comment entitled "Guidelines for Assistance in Establishing An Agricultural College, Agricultural Research and Agricultural Extension in Cooperating Country."

OPERATIONS AND POLICIES PROBLEMS

Panel:

E. C. Reichard, USOM/Bolivia, Chairman
A. L. Brown, USOM/Honduras
M.J. Lobell, USOM/Ecuador
E. P. Astle, USOM/British Honduras
Louis Franke, USOM/Argentina

Most operations and policies problems can be divided into five categories. These categories are not by any means mutually exclusive, but can be generally regarded as those affected principally by:

1. Relationships with the people of a country.

2. Relationships with the government and the Institutions of the host country.

3. Relationships within the U.S. country team.

4. Relationships with international agencies.

5. Relationships between USOM and ICA/W.

With respect to the first category, attention is drawn to the following three questions posed by delegates to the conference:

1. What projects are there in your program that are good and reaching masses of people?

2. What projects are there in your program that are good but not reaching masses of people?

3. What means does your program provide for the masses of people to find expression of their needs, their ideas, their energies, and their abilities?

There is a need for a better means of self-expression for the inarticulate and underprivileged people of most underdeveloped countries. In a great many instances, they have not in the past found a means of identifying themselves with the activities and programs of their own governments nor with our technical cooperation activites. Much of the dissatisfaction in rural areas is due to the campesino's inability to gain an audience for his views, to have a voice in his own destiny, or to have a feeling of participation in programs designed to help him find solutions to his problems.

Programs of community development, self-help housing, agricultural extension, industry, education, health, and public administration could give

people this opportunity, but frequently they did not do so. The servicio, by virtue of being staffed by local people, often provided a means of helping the people find articulation, but this feature is not automatically present in the servicio mechanism, and in fact, is sometimes frustrated by a servicio.

All of our agricultural programs may be examined to find out if they helped people to examine and give expression to their needs and their abilities to meet those needs, and to find ways of identifying themselves with our own activities as a means of meeting their needs.

Closely related is the question of relationships between USOM activities and those of the agencies and institutions of the host country. Some of the factors influencing these relationships are:

1. The degree to which national government institutions respond to needs of agriculture and reflect the interests of all classes of rural people;

2. The composition, organization, and degree of competence of governmental services to agriculture;

3. The degree of integration in education, research, extension, and credit activities;

4. The extent and effect of local leadership; and

5. The degree to which a national economic plan has been developed and the place of agriculture within that plan.

ICA relationships with host country institutions and governments are generally expressed through joint activities carried on through:

1. Servicios, and/or

2. Projects carried out directly through Ministries or other institutions.

Many modifications have been developed in both operations. Some have been successful - some have been failures. The Servicio technique is excellent when a good degree of understanding of the operation exists between the Servicios and the host institutions. Otherwise, the Servicio approach becomes an irritation to all of the parties concerned.

Conditions are continually changing and while the Servicio approach may be a proper device in one circumstance, it may not in another, and may well become obsolete as a mechanism even in those countries where it filled a definite need in the earlier stages of our cooperative endeavors.

Our relationships with international agencies involved in technical assistance is also important in program planning and execution. Host countries

in Latin America have access to a number of international technical assistance agencies. To the extent that the special facilities and capacities of the various agencies are utilized, this contributes to the total program development. USOMs maintaining liaison should cooperate with local representatives of these international agencies and organizations to prevent duplication and to assist in the maximum utilization of their services. Final responsibility for avoiding duplication of activities rests with the host government.

In the field of agriculture, the Food and Agriculture Officers have a special duty in seeing that our own part in this effort is competently handled. We have, also, a responsibility to see that our cooperation does not have the effect of adding more than the Congress intends to contribute to an international agency program.

FIELD TRIP REPORT

The first stop made by the participants of the Seventh Latin American Food and Agriculture Conference on Wednesday, March 1, was the Lo Valledor Slaughter-House and Packing Plant.

Dr. Harry Shepherd, Meat Industry Technician USOM/Chile, gave a brief summary of the Matadero Frigorifico Project in Chile and conducted a tour through the Plant now under construction.

Working closely with agriculture and livestock economists, two U.S. technicians were brought to Chile in 1957 to survey the meat industry. Their reports indicated that at least $ 5,500,000 could be saved yearly by modernizing operations, facilities, and transportation in the industry at the slaughter plant level.

Virtually 95% of the 342 slaughter plants in Chile are obsolete, inefficient and unsanitary. This program contemplates a modernization program based upon the installation of "Regional Mataderos" to accommodate the needs of several communities in one area with one properly constructed and operated plant.

Theoretically, from 11 to 14 strategically located plants could serve the needs of Chile <u>if</u> transportation of livestock and dressed meats could be modernized. Since this possibility is at least 20 years away we can probably level off at 40 to 50 plants instead of over 300 now in operation.

Financed in part by P.L. 480 pesos, which had a dollar value of 3,225,000 U.S. in 1957, the program has to date prepared plans for 5 plants, put one into modern operation and, at this time, is completing Lo Valledor in Santiago.

By far the largest meat plant in Chile, it will be the first to use North American machinery and the division of labor system in its operations. Built for sanitary and efficient operation it will serve as a training station for meat industry personnel and veterinary meat inspectors from all over Chile through both example and by in-service. The plant is scheduled to go into operation in 1962.

Point IV has simultaneously been training architects, engineers, and related technicians in meat industry design and operation. Eight professional men and plant owners were sent to the U.S. for two months to see plants under operating conditions. Meat industry labor leaders also were sent to the U.S. for a preview of what they can expect to find in the way of plant facilities, methods and labor practices when these plants are completed.

Upon leaving the Lo Valledor, the group continued to the Llay-Llay and the Aconcagua Valley, 50 miles north of Santiago, where table grapes, soft fruits, melons, onions, and garlic are produced for export.

This is an ideal fruit producing area with an abundant water supply. Most sections are virtually frost free with hot summer days and cool nights. Fine flavored, high quality fruits are produced, making it one of the most important areas in Chile for production of fruit for export.

At the "fundo" Santa Teresa in Llay-Llay, Sr. Hector Fuentes, Farm Manager, conducted a tour of the packing shed, vineyards, and orchards. This farm is one of the larger fruit farms in Chile with 500 hectares of table grapes, peaches, nectarines, plums, and pears being grown. In addition, honeydew melons, onions, and garlic are produced.

The production on the "fundo" is basically for export with only excess over export requirements sold domestically. Employment during the fruit season is around 600 with 180 of these year round employees living on the farm. The "fundo" is valued at E° 1,000,000.

The tour continued up the Aconcagua Valley to the "fundo" of Sr. Bernardo Schmutzer, located between San Felipe and Los Andes. The two major enterprises, poultry and swine, were shown to the group.

The poultry section consisted of 25,000 hybrid laying hens in conventional housing, 2,000 broilers in a trial battery operation, and several hundred layers under experimental housing conditions. The swine enterprise consisted of nearly 2,700 heads of Chesterwhite. Landrace, and crossbreds, with a complete operation from breeding and farrowing to fattening for slaughter.

At noon the group proceeded to the Hacienda San Vicente for a Chilean style luncheon as guests of the Instituto Pascual Baburizza. The luncheon was preceded by a colorful exhibition of Chilean horsemanship by the "huasos" of the Hacienda, who later were joined by the "señoritas" to dance the Chilean "cueca".

The group was welcomed by Sr. Bosko J. Barbarovic, President of the Instituto Pascual Baburizza, and a brief summary of the history and operation of the Instituto was presented. The Instituto was established as a private foundation in the will of the late Pascual Baburizza, an immigrant to Chile, as a token of appreciation to his adopted country. The Instituto is to engage itself in the improvement of agriculture particularly through the educational and vocational training of boys from modest and low income farm families.

This work is being accomplished through the vocational training school, Escuela Agrícola de Pascual Baburizza, and its adjoining Hacienda, San Vicente. At present the school educates and trains about 200 students enrolled in a six year course at no expense to the students. The Hacienda carries on practically all Chilean agricultural enterprises, and is used for demonstrations, investigations, and actual student practices. This operation is supported primarily by the incomes derived from the operation of the farm and from the endowment bestowed by Sr. Baburizza.

A tour was made of the facilities at the school and farm, and a part of the livestock operations was reviewed, particularly that part which is covered by a project agreement with DTICA.

Last year joint project activities were initiated to maintain demonstration herds and flocks and breeding units for reproduction of purebred stocks, and to investigate possible improved feeding and management practices applicable to

similar areas in Chile.

Among the animals exhibited were the imported Hereford, Rambouillet, and Suffolk sheep and the dairy herd which included products of the DTICA Artificial Insemination Program and the South American lactation and lifetime milk producing Champion.

The return trip to Santiago was made over the scenic Chacabuco pass and through a part of the truck farming section in the area immediately north of Santiago

CRITERIA FOR DEVELOPMENT OF PROJECTS IN AGRICULTURE WITHIN THE FRAMEWORK OF A SOCIAL DEVELOPMENT PROGRAM

Panel:

L. E. Peterson, USOM/Colombia - Chairman
R. L. Winters, USOM/Haiti
C. J. Spalding, USOM/El Salvador
E. C. Reichard, USOM/Bolivia
Lloyd Barber, USOM/Nicaragua

The Act of Bogotá, essentially, recognizes an urgent and immediate need for measures to cope with social-economic development.

This would involve improvement of land use and rural security by (a) legislation and tax structure improvements; (b) building institutions; (c) more adequate credit; (d) land reclamation (i.e., flood control, irrigation and drainage); (e) land settlement (colonization and parcellization); (f) increased productivity of land new in use; (g) farm to market roads; and (h) other services especially designed to assist small farmers by providing marketing facilities, extension services, research and basic studies, demonstration projects, rural education, and training facilities.

Knowledge of the host country law as it is related to land policy is important in developing a social economic program. These laws need professional legal interpretation and the legal tangle of land titles is an area in which the U.S. should avoid responsibilities for decisions, but should provide technical advisory assistance through a person (not necessarily a lawyer) who has an active interest in this phase and would encourage local action.

Agricultural credit is a fundamental factor in aiding the program. The immediate provision of production credit is important and arrangements to cover administrative costs on a continuing basis should be made by the country.

ICA should help by providing technical assistance, training and planning.

The high cost of supervised credit is an important factor to be considered along with the countries' responsibility to operate a credit program on a continuing basis and in such a way that capital is accumulated. Grants under Title II, PL 480 should only be utilized in the initial stages of development, prior to the harvest of the first crop. Title I, PL 480, local currency, could be used to build up capital for credit.

Recent studies and surveys indicate a real need for new land policies, and making better use of land already settled. This would involve the development of better institutions to provide extension services, education, training, vehicle availability and visual aids. Extension should not be held responsible for certain aspects, such as approval of loans, collections, etc. of a supervised credit program.

Agricultural projects included in a social development program should be designed to improve the economy of the greatest number of people by providing them the opportunity of improving their economic status and gain security.

COORDINATION AND INTEGRATION OF AGRICULTURAL TEACHING, RESEARCH, AND EXTENSION AS A MEANS OF REALIZING COUNTRY PROGRAM OBJECTIVES

Panel:

R. H. Warrens, USOM/Brazil, Chairman
E. K. Rambo, USOM/Panama
D. G. Curry, USOM/West Indies
C. K. Pearse, USOM/Guatemala
J.P. Keenan, USOM/Surinam

Most of the ICA Country Programs in Latin America have in common one objective, i.e., "to improve the country's agricultural economy." Programs designed to assist in realizing this objective will vary in specific content depending on local conditions and problems. However, all have one element in common: The building of agricultural institutions.

These institutions provide the agricultural research being conducted in the country, the teaching of agricultural sciences, and the technical services made available to the farmer. All of these activities are essential to a country's agricultural development and are included in each of the country programs.

However, in many cases, one or all are completely isolated from the others. This results in an unorganized approach to agriculture and prevents personnel capabilities being utilized to the fullest extent thereby retarding progress and often misdirecting efforts.

The fundamental and basic need in institutional development is the establishment of good communications which will permit the exchange of ideas and information and permit common understandings leading to a coordinated approach to the agricultural programs. In order that the services of technical agricultural personnel are utilized to the fullest extent it is desirable that services be integrated as feasible. This integration will substantially contribute to the further improvement of communications and the coordination of activities.

Most countries asking for technical assistance will desire and need to have an agricultural college and institutions which will perform agricultural research and agricultural extension activities. Each institution should have an individual identity but each should have an effective cooperative relationship to the other two. Each institution also needs to have an effective cooperative relationship with the Ministry of Agriculture.

It is desirable for the College(s) of Agriculture to be an integral part of an overall University system controlled by a Board of Regents for the University system. An agricultural college cannot function effectively unless it does research to feed new life into the college. It also needs to have contact with farmers on a two-way communication basis. The problems must come in from the farmers to the college and the answers and new suggestions go out to the farmers. Research does

the problem solving and extension disseminates the answer to the farmers. The Extension Service also brings the problems in to the reasearchers.

All research does not need to be conducted by the agricultural college but it is effective administration to have the experiment stations in the area served by the college to be under the administration of the research arm of the college. An exception would be the research conducted by the Ministry of Agriculture directly with its own staff. Research by the Ministry of Agriculture would be a fraction of the total research in the country and should not duplicate research by the college experiment stations.

It is recommended that an office of experiment stations be set up in the Ministry of Agriculture by enabling legislation in which is provided a formula for the allocation of funds for cooperative research to be undertaken between the Ministry of Agriculture and the College of Agriculture. Not less than two-thirds of the funds which the Ministry of Agriculture receives for research should be allocated for cooperative research with the balance being used directly by the Ministry of Agriculture for research conducted by staff members. Experiment stations of a College of Agriculture should not be solely dependent on the Ministry of Agriculture for research funds. A major part of its funds should be derived from allocations by the Board of Regents.

The Extension Service normally will be an arm or division of the Ministry of Agriculture, which operates on a cooperative basis with the College(s) of Agriculture. Enabling legislation may provide for a cooperative extension program of the Ministry of Agriculture with a College of Agriculture. The College of Agriculture also may have cooperative agreement with States or Provinces to provide part of the financial support. If no College of Agriculture exists to take the responsibility, the Ministry of Agriculture may enter into cooperative extension agreements with States or Provinces until a college of Agriculture is developed to take on the responsibility. (See Appendix I). By the use of cooperative agreements and funding the Ministry of Agriculture maintains its channel of communication directly to the farmers and may accomplish production drives, plant and animal disease and insect control programs, etc.

The Ministry of Agriculture would exercise considerable control over the extension program - on a cooperative basis. Only a part of the research would be cooperative and even then the control would be negligible for the cooperative part. There would be no direct control of the College of Agriculture by the Ministry of Agriculture but there would be a mutual interest in each others programs developed from several angles.

In addition, a fourth institution essential to the development of a country's agricultural economy is that of credit.

RECOMMENDATIONS AND RESOLUTIONS

I. The delegates to the Seventh Latin America Food & Agriculture Officers Conference express their sincere appreciation to the following, for the outstanding arrangements and hospitality that have contributed so much to help make this meeting a success:

a) The Minister and the Director General of the Ministry of Agriculture;

b) Sociedad Nacional de Agricultura

c) Instituto "Pascual Baburizza"

d) The Director of DTCA and staff

e) The Ambassador of the U.S.A. and Officers of the U.S. Embassy

f) The Director of USOM/Chile and his staff

g) The Communications Media Division

II. The Food and Agriculture Officers are especially appreciative of the helpfulness and friendliness of the staff members of the Food and Agriculture Division of USOM/Chile.

III. The Food & Agriculture Officers of the Latin America Region greatly appreciate the interest of ICA/W in the conference as evidenced by the attendance of Mr. Herbert Waters, Special Representative of the Director, and tender thanks for his many contributions.

IV. The Food & Agriculture Officers also express appreciation for the opportunity afforded to discuss the Food for Peace program with the Special Commission headed by Mr. James Symington.

V. The Handbook for the Food & Agriculture Officers Conference continues to be extremely useful and O/Food is commended not only for the quality of the contents and agenda but for its distribution to USOMs well in advance of the meeting.

VI. It is recommended:

A. That the action of ICA/W in organizing a conference on Agrarian Reform has served a highly useful purpose and that appropriate follow-up in the issuance of guidelines and development and execution of programs be regarded as the next important order of business by ICA/W and USOMs.

B. That the ICA Office of Food & Agriculture make a special effort to achieve a better understanding with other international organizations in the programming of meetings and other activities to avoid duplication of effort.

C. It is recommended that ICA/W consult with OAS on the implementation of the agrarian reform phases of the Act of Bogotá, possibly by the inclusion of agrarian reform under the terms of the activities of the Turrialba Contract.

D. That the TDY device be continued and more widely used. Food & Agriculture Officers and other USOM officials should make every attempt to release requested technicians for short periods of temporary duty. O/Food should continue to encourage TDY exchanges. Consideration should be given to assignment of specialists useful in several countries to a single USOM with clear understanding that they will also be available to other USOMs on request.

E. Whereas the Food & Agriculture Officers in the Latin American Region value the assistance and advice of O/Food officials it is recommended that all possible steps be undertaken to facilitate visits of personnel from O/Food to Divisions of Food & Agriculture of the various Missions including the use of Mission funds if necessary.

F. That much more emphasis needs to be placed on a combination of academic and practical agricultural training at the Secondary School level, both in the several country programs and in out-of-country training activites, particularly in the U.S. We urge that ICA/W encourage action in this regard. We urge further that ICA/W investigate and report on the possibilities of developing facilities for institutional participant training in agriculture at the pre-college and non-academic college level. The program should be designed to permit participation of considerable number of students at minimum cost, the more outstanding of whom may then receive further training. Others will return to their countries for immediate utilization of their training.

G. It is again strongly recommended that full biographical data including an up-to-date biographical data form or Form 57 and family situation be submitted with the nomination of each proposed candidate. This information is required for Mission consideration and country clearance.

H. That the practice of including the drafting and authorizing offices and the clearances on airgrams be reinstated.

I. Whereas, the abilities and responsibilities required of ICA agricultural personnel are not reflected in the grade levels of positions and whereas, the new emphasis being given to Latin America will tend to aggravate the disparity between growing responsibilities and present position grades, with particular reference to agriculture personnel; it is recommended, that this feeling on the part of all Food & Agriculture Officers in Latin America be brought to the attention of ICA/W.

J. Whereas, the regional Food & Agriculture Officers' Conferences continue to provide opportunities for exchange of opinions and experiences, for unity of objectives and liaison between ICA/W and the field staff; and whereas past conferences have been held at Guatemala City, Rio de Janeiro, San José, Kingston, Bogotá, Lima and Santiago; it is recommended that a similar conference be scheduled by O/Food in FY 62, and that O/Food continue where possible to schedule future conferences in countries which have not previously served as host. The selection of the conference site should be made made by O/Food on the basis of the situation existing at that time. (Invitations for the Eight L.A. Regional Food & Agriculture Officers' Conference was extended by El Salvador, West Indies, and Panama).

REGIONAL ACTIVITIES(SEMINARS AND WORKSHOPS)

The delegates to the Seventh Latin American Food & Agriculture Officers Conference recommend the following with respect to Regional Activities (Seminars and Workshops):

I- General Guidelines for Seminars, Workshops and Conferences.

1. Consultants employed or assigned to conduct seminars should:

   a) Consult with host country Food and Agriculture Officers prior to planning meetings to determine availability of the necessary facilities;

   b) After completing the necessary surveys return to the host country to complete final arrangements;

   c) Remain in the host country following the seminars until all final reports have been completed and submitted for reproduction.

2. Food and Agriculture Officers in participating Mission in cooperation with other Mission personnel, should assume the responsibility for briefing delegates and advisors on the characteristics of the conference and be sure that they are aware of their responsibilities.

3. The technical and/or policy level of the seminars or workshopsshould be decided at an early date and USOMs of the region should be notified by ICA/W.

4. The host government, the consultant and the F & A Officer should jointly determine the number and type of delegates that can be accommodated and notify other USOMs in the area to be served of country quotas.

5. Detailed instructions regarding the scope and type of information required from each participating country, for use at the conference should be circulated to all USOMs well in advance of the conference.

6. Participants in a seminar, worshop or conference should be encouraged to organize and conduct similar activities in their own country as follow-up and in-service training activities.

7. Participants to attend conferences, seminars or workshops should be selected from the highest policy making or action levels consistent with the subject matter and objectives to be covered.

II. The following schedule of activities has been suggested by the Committee:

FY 1962

1. Agriculture, Home Economics and Rural Youth Extension

   Date: July 3-15, 1961.

While only one conference could be arranged for this year it is recommended that combined meetings be held on a regional basis with two regional meetings being held each year in the future.

The four regions recommended are:

a) Mexico, Central America and Spanish-speaking Caribbean;
b) English-speaking Caribbean.
c) Northern South America
d) Southern South America.

2. Irrigation and Drainage- Panama.

Date: Scheduled for February 1962.

Level: Policy making and technician

3. Agrarian Reform

Date: Earliest possible

Level: Policy making, cabinet or sub-cabinet.

Agenda: Treatment of Agrarian Reform in its broadest aspect,including

the relationships of credit, communications, technical assistance, land tenure systems, cadastral surveys, etc.,as well as the social and political implications of various approaches.

4. Basic Principles or Cooperatives- University of Puerto Rico

Date: Between June and September, 1961.

Agenda: Establishing cooperatives:

a) Membership
b) Financing
c) Directors
d) Management
e) Operations
f) Legislation
g) Training

Types of cooperatives:

FY 1963

1. Livestock Management, Pastures and Forage.

Level: Directos of technical divisions

Agenda: Cultural Practices involved in establishing pastures; in livestock management and in marketing.

2. Agriculture, Home Economics and Rural Youth Extension.

Conferences to be held for two of the regions this year.
The four recommended regions are:

a) Mexico, Central America and spanish-speaking Caribbean;
b) English-speaking Caribbean.
c) Northern South America
d) Southern South America.

3. Seed Improvement Seminar.

Place - Brazil. Follow up on work accomplished in prior years.

4. Photo Interpretation Training Course and Workshop.

Date:

Level: Host country technicians.

Agenda: Course to be given in two stages as follows:

a) Basic photogrammetry in Panama with IAGS (Inter American Geodetic Survey).

b) Surinam Department of Forestry for interpretation.

FY 1964

1. Agriculture, Home Economics and Rural Youth Extension.

It is recommended that these be combined and that meetings for two of the regions be held this year:

The four recommended regions are:

a) Mexico,Central America and Spanish speaking Caribbean;
b) English-speaking Caribbean;
c) Northern South America;
d) Southern South America;

2. Agricultural Credit and Cooperatives.

Date:

Level: Directors and Department Heads of Agricultural Lending Institutions and representative USOM advisors.

Agenda: Formation of capital for agricultural lending institutions, processing of loans for small farmers, establishment and effective utilization of cooperatives, supervision of loans and training of personnel.

3. Fisheries - Lima, Perú.

Date: October - December, 1963, or January-March 1964.

Level: Fisheries Administrators at Policy Making Level and USOM advisors.

Agenda: A review and evaluation of fisheries development activities in the various L.A. countries. Direction and magnitude of program accomplished. How can more fish be made available to masses of population which need higher levels of protein nutrition. Development and orientation of activities to provide more adequate foods for low income peoples Problems and methods for their solution.

General Recommendations

1. Seminars on Agriculture, Home Economics and Rural Youth Extension should be rotated in emphasis in the three major areas of activities from year to year.

2. Improved high level coordination in the scheduling of workshops and seminars being offered by various agencies such as Turrialba, FAO, ICA, etc.

SUMMARY STATEMENTS

W. S. Middaugh, ICA/W

The Conference has been notably successful in affording an opportunity to convey information regarding new program developments and to exchange ideas and suggestions for adaptation to specific situations. There was mutual benefit derived from the session with the Food for Peace group that was in Santiago at the same time.

The Chilean Director of Agriculture's talk, "Agricultural Economic Development in Chile" presented on the first day of the Conference an example of long-range planning of agricultural development. Throughout the sessions there was emphasis of the importance at the present time of availing ourselves of the opportunity and of accepting the responsibility to do advance planning in new fields. The new resources which the U.S. is expected to make available in Latin America will broaden the approach to agricultural development and may make possible economic assistance that should be planned and implemented outside of the context of servicio operations developed for handling technical assistance.

The Peace Corps of young U.S. citizens is a developing resource to be utilized in the implementation of projects and programs. We have had both successful and unsuccessful experience with similar groups on a small scale. The success or failure was traceable to the extent of planning the activity and backstopping by direct-hire of U.S. technicians. When this was done the results were very gratifying.

O/Food is appreciative of the fine cooperation in planning and implementing the two conferences, Agrarian Reform and Food and Agriculture Officers' Conferences.

The papers requested were submitted on time and in concise form. It is recognized that two solid weeks of conferences, requiring study and preparation at night and conferences over the weekend, has been strenous.

The recommendations that have been agreed upon by this group will provide guidance for the future. The group expressed commendation with respect to the Handbook for the conference. It would be helpful if you reported in an informal way as to the uses you are making of the commodity reports in the Handbook. Do you furnish copies to the Ministry of Agriculture?

If so, do you need additional copies of specific papers?

One final request is for success stories of participants who have returned and are contributing to the agricultural development of their country. Photographs should accompany the stories. It was both a surprise and a disappointment that the recently submitted success stories did not cover this aspect of the program. Otherwise the stories were very good.

"ADVISORS AND ADVISING"

An editorial in
The Times of VietNam
April 26, 1958.

"We have many foreign advisors among us these days and we want and need them in many fields of endeavor in the building of our very young Republic.

"The role of a foreign advisor is a difficult role to play, especially since most advisors are considered to be "experts". To be an expert one must narrow considerably the field of one's learning, especially to be a real expert, and perhaps this is the primary reason why it is extremely difficult to be at the same time a good foreign advisor and still a real expert. It is so difficult to remember that there is so much more to learn in a foreign country than any one person can hope to teach, especially if his knowledge is the highly specialized knowledge of an expert.

"An expert does not have time during his very specialized studies to learn a great deal about other cultures and other peoples, to say nothing of other ways of doing things. He must concentrate his efforts on finding the best way to do the things he wants to do. But once he has learned this, it is often extremely difficult to patiently attempt to fit this knowledge, a little at a time, into a practical situation in a foreign land. It is perhaps discouraging when he can only "advise."

"Foreign advisors are here to advise. The advice they have to offer based on their specialized knowledge must fit into a complex pattern of sociological, economic, and political factors.

"The expert is not expected to be aware of all these factors, but he is expected to realize that the authorities he is working with are quite aware of many of these factors, and that they must judge his advice within a much larger framework than that of his own specialized knowledge. First, of course, he must realize that he is the advisor and not the authority, not the minister, not the director, not the chief of service, not the chief of section.

"When he is fully aware of all these things, then his role as an advisor becomes meaningful and much easier to fulfill in the long-run. Each morsel of his advice may not be put in the form of a decree the moment it has been uttered, of course, but will be judged as coming from someone who knows more than an "expert" is required to know, more than you can learn in a laboratory, and it will have a better, broader and more durable effect."

A P P E N D I X I

"Memorandum of Understanding Between College and Ministry on Cooperative Program of Extension and Home Economics"

Whereas the_____college has under its control Federal and State funds for extension work in Agriculture and Home Economics which are and may be supplemented by funds contributed for similar purposes by counties and other organizations and individuals within said state, and the Ministry of Agriculture has funds appropriated directly to it by_____which can be spent for extension work in the State of_____; therefore, with a view to securing economy and efficiency in the conduct of extension work in the State of_____, the President of the_____college acting subject to the approval of the Board of_____of the said_____college and the _____ of Agriculture of_____, hereby executes the following Memorandum of Understanding with reference to cooperative relations between said_____college and the_____ Ministry of Agriculture for the organization and conduct of extension work in Agricultur and Home Economics in the State of_____.

I. The _____college agrees:

(a) To organize and maintain at said institution a definite and distinct administrative division for the management and conduct of all cooperative extension work in Agriculture and Home Economics, with a Director selected by the institution and satisfactory to the State ministry;

(b) To administer through such division thus organized, known as the Agricultural Extension Service, any and all funds it has or may hereafter receive for such work from appropriations made by the Federal Government or the State Government, by allotment from its Board of_____or from any other sources;

(c) To accept the responsibility for conducting all its educational work in the field of Agriculture and Home Economics and subjects related thereto as authorized by the_____and other acts supporting cooperative extension work, and such phases of other programs of the Ministry as are primarily educational, which the Ministry has been authorized to carry on within the State.

II. The_____Ministry of Agriculture agrees:

(a) To maintain the Ministry a Federal Extension Service which under the direction of the_____,(1) shall be charged with the administration of the_____Act as amended, and other Acts supporting cooperative extension work insofar as such administration is vested in the Ministry; (2) shall have primary responsibility for and leadership in all educational programs under the jurisdiction of the Ministry (except the Graduate School); (3) shall be responsible for coordination of all educational phases of other programs of the Ministry, except the Graduate School; and (4) shall act as a liaison between the Ministry and officials of the_____college on all

matters relating to cooperative extension work in Agriculture and Home Economics and educational activities relating thereto.

(b) To conduct through_____college all extension work in Agriculture and Home Economics and subjects relating thereto authorized by_____, to be carried on within the State except those activities which by mutual agreement it is determined can most appropriately and effectively be carried directly by the Ministry.

III. The_____college and the Ministry of Agriculture mutually agree:

(a) That subject to the approval of the President of the_____college and the Ministry of Agriculture, or their duly appointed representatives, all co - operative extension work in agriculture and home economics in the State of _____involving use of Federal funds shall be planned on a joint supervision of the Director of (Agricultural Extension Service) of_____ and the Administrator of the Federal Extension Service; and that approved plans for said cooperative extension work in the State of_____shall be carried out through the (Agricultural Extension Service) of_____ in accordance with the terms of the individual project agreement.

(b) That all State and County personnel appointed by the Ministry as cooperative agents for extension work in Agriculture and Home Economic s in the State of _____shall be joint representatives of the_____college and the Ministry of Agriculture, unless otherwise expressly provided in the Project Agreement.

(c) That the cooperation between the_____college and the Ministry of Agriculture shall be plainly set forth in all publications and other printed matter issued and used in connection with said cooperative extension work by either the_____college or the_____Ministry of Agriculture.

(d) That annual plans of work for the use of Federal funds in support of cooperative extension work shall be made by the (Agricultural Extension Service) of the State of_____and shall be subject to the approval of the Ministry of Agriculture in accordance with the terms of the_____Act and other applicable laws and when so approved shall be carried out by the (Agricultural Extension Service) of the said State of_____.

IV. The_____college and the_____Ministry of Agriculture further mutually agree:

(a) That the Ministry of Agriculture shall make final determination on any proposed supplementary Memoranda of Understanding or similar documents, including those with other agencies, affecting the conduct of cooperative extension work only after consultation with appropriate designated representatives of the cooperating colleges.

(b) That the_____college will make arrangements affecting the conduct of cooperative extension work with agencies of the department, or with other Federal agencies, only through the Administrator of the Federal Extension

Service, or in accordance with an existing general agreement which has been approved by him.

(c) That all memoranda and similar documents hereafter executed affecting co - operative extension work, whether between agencies of the Ministry or be - tween State (Agricultural Extension Services) and agencies of the department, shall be within the framework of, and consistent with the intent and purposes of this Memorandum of Understanding.

(d) That all memoranda and agreement affecting policies in cooperative extension work shall be reviewed periodically by appropriately designated representa - tives of the said cooperating colleges and the Ministry of Agriculture for the purpose of determining whether modification is necessary or desirable to meet more effectively current developments and program need.

V. This Memorandum shall take effect when it is approved by the_____of the _____college and the Ministry of Agriculture of_____, and shall remain in force until it is expressly abrogated in writing by either one of the signers or his successor in office.

_____ _____

_____Ministry of Agriculture _____College

ARGENTINA

PROGRAM BACKGROUND

Argentina cannot properly be called an underdeveloped country agriculturally, nor even a retarded one; "delayed" or "side tracked" is probably more accurate.

Twenty years ago Argentina had the most progressive, productive and efficient agriculture in Latin America. It is probably still at or near the top, but it has lost its clear measure of superiority and the sharp momentum of its technical progress. This happened because of the application of faulty economic and social policies which subsidized state-owned industry and the industrial worker at the expense of agriculture. The devices of currency controls, export and import restrictions and multiple rates of exchange were used to drain off agriculture's earnings.

The incentive for production was gone, and with it the pressure of the farmer on research workers to produce. There followed a kind of technical isolation from the rest of the hemisphere.

Argentina's crop and grassland unit yields are lower than two decades ago. Total agricultural production has not kept up with the population growth. Yet the Argentines are probably the best fed people in the world today. This is possible because Argentina has historically been a mass exporter of foodstuffs and agricultural products: beef, mutton and pork; cheeses; apples, grapes and pears; the oils of cottonseed, sunflower, linseed; wheat and other cereals; plus wool, cotton, lumber, hides, quebracho extract, tung oil, tea, etc. When more food was needed for domestic consumption, exports were reduced.

But GOA looks to agriculture to earn something like 80 percent of her foreign exchange. The greater part of the funds to repay the huge sums she has and is borrowing to finance her economic development program must come from exports of agricultural commodities. So a sharp improvement in agricultural production all along the line is vital.

Fortunately Argentina has the physical and human resources to do it. Her inventory includes:

1. The 150 millon acres of the fertile Pampa. This land is all in production and 90 percent is under cultivation or in pasture-cropland rotations. It produces 80 percent of Argentina's cereals and beef.

2. The Pampa is backed by the semi-arid West, the sub-tropical North and Patagonia. These vast areas are relatively thinly populated and sparsely used, but offer great opportunities for the future.

3. A half million farm families who are intelligent and hard working.

4. A population of over 20 million with an annual population increase of about 2,2 percent.

5. A literacy rate of 88 percent.

6. The largest - both in total number and percentage wise - middle class of any country in Latin America.

7. An established university system, with Faculties of Agronomy and of Veterinary Medicine in the University of Buenos Aires and the provincial institutions.

8. A system of agricultural high schools.

9. A national research and extension service agency with regional centers staffed with experimental and extension personnel. The agency is supported primarily by a tax on beef exports and is adequately financed.

In addition, Argentina's agriculture has other advantages, including:

1. A long established, respected and effective land title and tenure system.

2. Not much of a land distribution problem. The large land holdings of the Pampa are gradually being broken up by a natural process of sales and inheritance. (Average holding 550 acres compared with 2,500 less than 50 years ago). There is little good land with access to transportation that is not being used. There is not yet a population pressure which urgently requires a land distribution or resettlement program. There is a very good chance that Argentina will improve and expand its transportation, communications and social services at a rate that will allow land distribution to proceed by a natural, orderly evolution.

U. S. TECHNICAL COOPERATION

USOM/Buenos Aires dates to June 3, 1957, when the agreement was signed. The first project was in Civil Aviation. In February of 1959, President Frondizi created CAFADE (the National Commission for the Administration of the Funds for the Support of Economic Development). CAFADE is a temporary agency of the Office of the President through which all technical cooperation activities of the ICA are channeled.

CAFADE administers some A$P 319 million of P.L. 480 loan funds. These funds were allocated by GOA as follows:

Aid to universities	60 million pesos
Aid to Atomic Research Institute.	4 million pesos
International travel of participants	5 million pesos
Operation Beef	250 million pesos

CAFADE requested USOM cooperation in Operation Beef and a Livestock Improvement Project was set up early in FY 1960. The only other USOM projects in

agriculture at present are two proposed university-to-university contracts.

BACKGROUND OF OPERATION BEEF

Foreign exchange is of course vital to finance the huge GOA economic development program. GOA looked first to means to conserve foreign exchange and saw that imports of petroleum was the greatest single drain on the economy. The historic nationalistic policy in relation to oil exploration was reversed and private industry invited in to help. Already the country is producing 60 percent of its needs and expects to be self sufficient by late 1961. That will save $ 300 million of foreign exchange per year.

Beef is the greatest single earner of foreign exchange and accounts for 25-40 percent of exports by value. Under the Perón regime the cattle producer received only a third of the world price for his beef, there were ceilings on prices for domestic consumption and beef prices were subsidized to the consumer in the Buenos Aires area. Under these conditions producers could do little more than conduct a holding operation.

When the provisional government continued currency controls and the multiple rate of exchange, the cattlemen became discouraged and sharply reduced the size of their herds. There were unprecedented marketings in 1958; it is said that some 7 million cows and heifers were slaughtered. In that year exports rose to above 600,000 metric tons and per capita domestic consumption to 232 pounds (vs. 81.5 in the U.S.). The cattle population declined to 40 million head (even so, Argentina has two head of cattle per capita compared with less than 3/4 of a head in the U.S.).

In December 1958 President Frondizi freed the peso from controls and embarked on the stabilization program. This decision immediately tripled the price of beef to the cattleman (although, since the peso weakened until it found its true level, the increase in terms of purchasing power was much less). The natural reaction was a scramble to get back into the cattle business, to rebuild herd numbers, and to keep steers to grow out to greater weight. As a result, in 1959 per capita consumption dropped to 161 pounds and exports to slightly above 200,000 metric tons.

CAFADE was designated to stimulate production. The short term objective was to increase beef marketings for export. It is conceded that the upswing in the cattle population has already begun and it now appears that marketing will reach normal levels in 1962, but beef production must continue to increase to keep up with the population growth and to leave a comfortable margin for export.

Of more importance over the long pull is the need to bring Argentina's livestock industry and its research, teaching and extension programs up to date in technology. The beef industry will have to increase its efficiency if it is to fulfill its destiny as a primary factor in Argentina's prosperity and to maintain its competitive position in the world's market.

LIVESTOCK TECHNOLOGY

The best of the Pampa ranchers produce a 1,000 pound steer at 20 months which is entirely grass fed, has a high dressing percentage and will grade U.S. High Good or Low Choice.

It has always been so easy to produce good beef on the Pampa that there has not been much incentive to adopt improved practices. As size of farms decrease and costs of production increase, the farmers of much of the Pampa will sooner or later have to shift to a more intensive type of agriculture. Then they will have to look to the sub-tropical North and the semi-arid West for the bulk of the stocker calves for their fattening pastures. Transportation is the N° 1 problem of Argentine agriculture, and the transition of the North must await improvement of highways and other means of transportation. GOA has a 10-year plan aimed at doubling the present highway mileage.

The lag in beef cattle technology is shown by a comparison of beef cattle production (measured in pounds of beef produced per head per year) for the years 1935-39 and 1956. On this basis, Canada is up 63 percent, the U.S. plus 40 and Mexico plus 16, whereas Argentina is exactly where she was 20 years ago.

INTA, the research and extension agency of the Ministry of Agriculture, has analyzed its situation as follows: Argentine research workers have excellent technical competence in plant breeding, ecology, botany, plant pathology and entomology, and in the theoretical aspects of animal health, disease control, vaccine production and artificial insemination. They are less strong in soil fertility, animal nutrition, animal physiology, pasture studies, range management and animal husbandry in general. The universities do not conduct research and so their graduates have had little training in experimental techniques. The universities grant only two degrees in agriculture: Agronomy and Veterinary Medicine, and the concept of specialization at the undergraduate level has not gained acceptance, nor has that of advanced graduate studies.

In the end, everything gets down to basic approaches: Improvement in the curriculum and course content at the universities; a marked increase in the number of university graduates; the introduction of research at the undergraduate and graduate level, either by the universities entering the experimental field or in cooperation with INTA; and the opportunity for the undergraduate to specialize in one of a number of fields.

In the same way there are basic problems in the field of applied agriculture. For example, farmers need to apply fertilizers and use mineral supplements, but Argentina has no fertilizer industry. It is probable that nitrogen can be produced as a petroleum and natural gas by-product; but phosphate and potash resources have not been investigated.

THE CAFADE PROGRAM

The CAFADE program is of two phases. The agency hopes to bridge the technological gap by the mass dissemination of information and by demonstrations. At the same time, it is supporting INTA and the agricultural faculties of the universities in their efforts to become more effective.

During the past 15 months CAFADE has brought in a relatively large number of consultants to help pinpoint the problems of the beef cattle industry and to give direction to its program. About 50 percent of these consultants have been provided by USOM, either by direct hire or TDY from other missions. The remainder came from UN, FAO, ECLA, CEPAL and Turrialba, or by direct hire on the part of CAFADE.

CAFADE has brought in teams of consultants to work on cattle production of the Pampa, the sub-tropical North and the semi-arid West. The by-product of these studies have been to point up the need for work in related fields, such as the establishment of a broiler industry to supplement the beef supply for domestic consumption (local poultry leave much to be desired from the standpoint of quality, and prices are 50 percent higher than beef). Other activities which are being considered include livestock marketing and statistics; consumer preference studies, both domestic and abroad; provision of demonstration equipment in pelleting, hay wafering, land reclamation, land clearing, well drilling, etc.; establishment of a pilot agricultural production credit system; support to the vocational agricultural high schools; etc.

Since CAFADE is a temporary agency whose life is limited by those of the funds assigned to it, it is seeking to work through the existing agencies which will be the inheritors of its program. These include the research and extension organizations of INTA, the Ministry of Agriculture, the Meat Board, the cattlemen's association, the universities and the vocational agriculture schools.

CAFADE is relaying requests from INTA for ICA resident research technicians to be stationed at its key experiment stations and for cooperation with the extension service and from the Meat Board and the Ministry of Agriculture for cooperation in setting up livestock marketing, forecast and future market demand and supply studies. University-to-university contracts and support to the vocational agriculture schools are also under consideration.

CAFADE is asking for an expanded participant program which in the main would provide 15-18 months of training for university graduates, most of them INTA employees. In addition to the USOM facilities in this field, CAFADE is taking full advantage of the participant grants offered by other international technical cooperation agencies.

B O L I V I A

I. After general election in June, the winning party was inaugurated on August 6, 1960, and the following day new cabinet appointments were made. Although the same political party came into power nevertheless there was an appreciable shift within the structure of the party and new elements came into the management of the Government, the respective Ministries, and the semi-autonomous agencies.

Designations of new high level officials brought about considerable relief and improved understanding of National Agricultural problems on the part of the Ministry of Agriculture, owing to the fact that the new Minister is a graduate Agricultural Engineer with many years of wide agricultural experience. Along with this back ground he brought into the Ministry a greater understanding of AG/USOM aims and a better orientation regarding the total national agricultural problem; its overall requirements and urgent need for establishment of priorities; development of well oriented plans; and finally, a rigid implementation of these plans in consonance with availability of funds.

Simultaneously with the election, the National Economic Development Policies appeared for public consumption. Among those proposed, the National Agricultural Policy occupied an important part in the future economic development of the country.

Some of the salient points bearing on formulation of Agricultural Policy are:

1. 70% of the population depends on Agriculture for their livelihood.

2. Bulk of the soil tillers are following the primitive methods of their forefathers.

3. Land and soil are the pillars and foundation of national economy.

4. Solution of the economic problems of Bolivia is in the hands of men who are confronted with attaining the best and wisest use of its natural resources.

5. Improvement and greater production derived from the wise use of these resources should be properly channeled into internal markets while exportable products should seek foreign sources of consumption.

The objectives of this policy propose to seek monetary stability by adopting the following measures:

1. Increased agricultural production to save foreign exchange.

2. Specialized agricultural production to attract foreign exchange earnings.

3. Continuous development of traditional agriculture.

To support this policy the Government proposes to reorganize the Ministry of Agriculture by centralizing the execution of National Agricultural Policy in the Ministry while at the same time seeking to decentralize execution of the programs.

Proposed programs are based on development of agricultural projects supported by well conceived and realistic plans.

Basic Programs

a) Increased efforts for larger Agricultural and Animal Husbandry Extension Service.

b) Market development, organization of transport, and standardization of products and packaging.

c) Create and form a corps of practical specialists of farm family origin.

d) Development of small scale irrigation projects, such as small and inexpensive dams, wind mills, small canals, and impounding basins.

e) Extend and increase the work in fito sanitation and animal health and sanitation.

f) Development of a rational program of agricultural mechanization.

g) Creation of an agricultural museum as a depositary organization of agricultural libraries; publication of a monthly Agricultural Journal.

h) Reorganization of the policies of all agricultural experimental stations so they would have national recognition and follow the national policy of Research.

i) Development of agricultural and livestock industry with a view to improving daily diet of farmers.

j) Spread and extend knowledge of the use of fertilizers and their advantages and development of programs for soil conservation.

k) Rational exploitation of forest resources and application of adequate conservation and reforestation policy.

l) Reorganization and recapitalization of the Agricultural Bank of Bolivia and contemplating establishment of two operational divisions within the Bank:

   (a) Division of Export Promotion for exportable agricultural products.

   (b) Division of Credits to handle farm credits and agricultural and livestock cooperatives.

These two divisions will have a goal of stimulating, fomenting and enlarging Supervised Agricultural Credit for the agricultural groups most active in contributing to the increase of agricultural production. Especial emphasis is to be made for giving credit to farmers and groups who are faithfully carrying out the agricultural policy of the National Government.

This National Agricultural Policy and proposed programs have been taken up with the Minister of Agriculture in a series of round table discussions with key technicians of the Food and Agriculture Division of USOM and Servicio Agrícola participating and taking important leads in discussions. Some conferences had FAO participation.

The policy and programs were accepted as a whole by all technicians of participating agencies.

Questions were raised by many with regard to the implementation of these programs in connection with availability of funds and the lack of key technicians to take the lead in operating some of the more ambitious programs.

Agricultural projects currently in operation by SAI are only a part of any complete program proposed by the Government. In addition to the financial dilemma faced by the Government, the Nation does not have a sufficient number of adequately prepared key technicians of mature age capable of assuming leadership positions within an ambitious agricultural program. During the last few years the country has lost, and still is continuously losing, human resources. In Bolivia, at present, trained technicians of mature age are the most important human resource and most of them have foreign training as well as substantial experience.

These irreparable losses are due to political influences and to extremely low pay. The current average pay of a technician is not adequate to support even a small family on a subsistence level. Many are living on past savings. The Stabilization Board created in 1956 promulgated a policy of "salary wage" freeze, but failed to freeze consumer prices of household supplies and the components of daily family rations.

The policies of the Stabilization Board and some of their implementation succeeded in preventing further devaluation of the monetary unit but failed to hold the purchasing value of money. The current situation is ever-rising prices of goods to be purchased with the same earning which were in force at the time of enacting the stabilization policy for salaries and wages. As a result of this situation the country which was not endowed with too many technicians in the beginning has been losing those they have to neighboring Republics. In an attempt to develop their own agriculture they are attracting qualified Bolivian specialists with better and more attractive pay scales and by keeping them out of political spheres of influence.

II. Pursuant to the established policy, the Director of USOM to Bolivia recommended in 1959 that several agricultural projects operated and managed by

Servicio Agrícola be designated for transfer and operation by the Government of Bolivia during 1960.

The reasons for these transfers were:

1. To discontinue operation of projects by SAI which had reached maturity and had become routine operations.

2. To strengthen the Ministry of Agriculture by transferring such projects which were fully manned, equipped, and operationally sound.

3. To enable SAI to undertake new projects, especially those dealing with colonization and settlement of new agricultural areas.

The following projects were transferred in 1960:

1. Cattle experimental ranch at Muyurina (Santa Cruz).

   This project was designated for transfer early in 1960. Due to considerable political interference and indecision on the part of Government, this project, complete with animals and developed pastures and buildings, was transferred to the Government of Bolivia on September 30, 1960. Simultaneously the Government of Bolivia transferred the ranch to the Salesian Fathers.

2. Valleys Agricultural Experiment Station "La Tamborada". This Project was finally transferred in August, 1960, to the Government of Bolivia who in turn transferred it for operation to the Faculty of Agriculture, University of Cochabamba. Negotiation for transfer of this station began in October 1959, and continued until about one week before the transfer. Again for lack of decision on the part of the Government and political pressures, transfer of the Station took place 10 months after negotiations began. The Station was tranferred in an operational condition with a full complement of Station personnel, buildings, and material.

   Full local currency budgetary support is being provided to the University by SAI until December 31st, 1960.

3. Cattle Ranch at Reyes.

   On April 1st, 1960, the airport operation and maintenance, the operation of the slaughter-house, management of Hotel-Guest house, and various shops were transferred to the Bolivian development Corporation (CBF-the original owners). SAI retained, at specific request of CBF, operation and management of the cattle ranch proper until December 31st, 1960.

   The cattle ranch will be transferred to the Bolivian Development Corporation in fully operational condition with over 1300 animals, material,

buildings, and personnel on December 31st, 1960.

4. Fisheries project operated by SAI will be transferred to the Ministry of Agriculture on December 31st, 1960.

5. The Agricultural Statistics Section supervised by SAI and FAO, a component part of the Agricultural Economics Division of SAI, will be attached to the reorganized Division of Agricultural Economics of the Ministry of Agriculture on December 31st, 1960.

6. Agricultural Extension Service, organized by SAI and operated as the Division of Agricultural Extension of SAI, will be transferred to the Ministry of Agriculture on December 31st, 1960, in full operational condition. All personnel, all office and field equipment, all vehicles, and several small buildings will be transferred to the Ministry of Agriculture.

   This is the largest and oldest division of SAI and its transfer to the Ministry should strengthen appreciably the personnel pool and organization of the Ministry of Agriculture.

Meanwhile SAI has undertaken a new project dealing with land and soil reconnaissance of new areas suitable for agriculture, the final objective being colonization and settlement of these areas by the people of densely populated districts and engaged in subsistence farming on marginal small plots of land.

The area of Alto Beni, the uppermost flats of the River Beni is now being readied for a colonization program. Land reconnaissance and soil surveys indicate that some 13 to 14,000 hectares of land on both sides of the river for a distance of about 75 kilometers are suitable for tropical agriculture.

Land and soil reconnaissances are programmed by SAI with USOM support for 1961 in the areas following the River Beni to its confluence with the River Madeira on the Brazilian border.

III. Within last two months representatives of the Interamerican Development Bank have been visiting Bolivia with the objective of surveying economic conditions of the country, and orienting officials of Bolivian Government on the preparation of project documentation with the objectives specified to obtain needed loans.

Projects in Mining, Petroleum and Agriculture are the foremost activities to receive consideration by the Bank.

Under the advisement of the National Planning Board, the Ministry of Agriculture developed a series of sample projects falling into the purview of the National Agricultural Policy presented by the Government on August 6, 1960.

The projects submitted by the Ministry of Agriculture and under consideration by the Bank are as follows:

Project		Estimated Cost
Irrigation and Drainage	$US	1,903,000
Irrigation (Villamontes)	"	2,000,000
Mechanization of Agriculture	"	1,800,000
Colonization (Development)	"	1,000,000
Colonization moving 1,100 families	"	2,000,000
Coffee, Cacao, Tropical fruits	"	600,000
Commercialization of rice	"	525,000
Wheat and cereals	"	1,200,000
Edible oils	"	750,000
Agricultural credit (Additional capital)	"	3,000,000
Agricultural census	"	450,000
Agricultural Extension	"	2,000.000
Dairy and beef cattle industry	"	3,400,000
	$US	20,628.800

The Bank representatives are in Bolivia at present and are making a preliminary review of these proposals. These projects are very much in the formative stages at this writing so we feel constrained to offer no opinion at this time as to their possible effect, if all or any are implemented, on the present agricultural policies and programs of the Bolivia Government.

B R A Z I L

Changes in Brazilian Agricultural Policy in 1960

There were no grand-scale changes in Brazil's agricultural policy in 1960. The President remained preoccupied with the construction of the New Capital. Minister of Agriculture Mario Meneghetti, who was an Opposition Party appointee, resigned in April. He was replaced by Minister Antonio de Barros Carvalho, a terminal appointee of the Administration. This resulted in the resignation of six department heads, and it had a temporary delaying effect on our vocational agriculture projects and research projects.

The Ministry of Finance with-held Ministry of Agriculture funds until the second week of December. This prohibited either the launching of new projects or expanding those already operating.

A short cacao crop following floods in the cacao zone resulted in reduced host country support in that area.

The adoption of an agressive marketing policy by the Brazilian Coffee Institute resulted in sharply increased sales this year, (greatest increases in Germany and Italy). This, coupled with a shorter crop, (the Government of Brazil is obligated to purchase the surplus) had a strengthening effect on the economy.

A number of favorable and promising trends in Brazilian agricultural policy came to light during the year. Most of these developments can be attributed directly or indirectly to orientation, training and advice provided by the USOM through ETA over the past few years. It is significant that with ever increasing frequency, men in policy making positions -- heads of Ministerial departments, universities and state secretariats of agriculture -- come to the ETA offices for advice on the improvement of their programs.

A discussion of some of the more noticeable changes follows:

A. Change in farm credit policy

Farm credit policy in Brazil was developed around the financial support of export crops. The Bank of Brazil has been the major source of agricultural credit. Credit for the establishment and finance of family farm units was unknown. This situation prompted the organization of Associaçao de Crédito e Assistencia Rural (ACAR), in the state of Minas Gerais in 1948, as primarily a supervised credit agency. The "CAR" type agency spread to other states. In 1957, Associaçao Brasileira de Crédito e Assistencia Rural (ABCAR) was organized to coordinate and lead the state agencies.

The Bank of Brazil, the Bank of the Northeast, two state banks and a few private banks have cooperated with the "CAR" organizations since 1952.

While their extension work showed steady progress the "CAR" organizations were never able to place a significant number of loans. Loan processing and servicing was slow, cumbersome and costly. Loan funds were often not available when needed.

In March, 1960, Joao Napoleao de Andrade, President of both ACAR and ABCAR, was named President of the National Bank of Credit Cooperatives. The bank is now in the process of revising its policies and regulations. An effort is being made to expand its resources and organize credit cooperatives which will serve small farmers as well as larger operators. The bank has requested assistance from the USOM.

A National Rural Credit Seminar, sponsored by ABCAR in 1960, defined farm credit as a tool of economic development, and further as a tool of extension. Another outcome of the seminar was the general recommendation that means be developed to enable small farmers to acquire, develop and capitalize their farm units.

Thus, the "CAR" system, operating in 12 states, now sees itself as a cooperative agricultural and home economics extension service, viewing farm credit as one of several extension teaching tools. This is considered highly significant, because, 1) it, in effect, demands that the traditional leading institutions provide for the credit needs of all farmers, not just the larger operators, and 2) it leaves the new organization free to do the much needed extension work.

The orientation of high level government and banking officials as to the proper role of credit in agriculture brought about this development. Fifteen Brazilian leaders (including Joao Napoleao de Andrade) participated in the ICA -- sponsored Agricultural Credit Workshop held in Panama in 1957. In 1959, fourteen Brazilian leaders (also including Sr. Andrade) received ICA participant scholarships with which they observed agricultural credit in action in the United States. Eight representatives of private, state and federal banks were ICA participant trainees in the United States in 1960. USOM/Brazil has provided an agricultural credit advisor since 1957.

Future USOM agricultural credit assistance will be oriented as follows:

1) Advising and assisting the central government in establishing a comprehensive agricultural credit system. (This will be facilitated by the activation of a counsel of rural loans for agricultural credit, which was authorized in 1954 but has remained dormant).

2) Advising and assisting the Bank of Cooperatives in organizing a national system of farm credit cooperatives and in expanding their support to farmer owned cooperatives (USOM economic support will probably prove desirable to provide an adequate loan fund.)

3) The USOM should probably consider cooperating with Brazil in establishing a demonstration land development and resettlement project.

The entrance of the National Bank of Cooperatives into the small farmers credit field and the concentration of the "CAR" system on extension work should result in a greatly increased number of farm loans made, plus more efficient use of credit, with the final result of increased national production. It should also result in a greater

output of extension teaching.

B. National Extension Agency assumes national leadership

Associaçao Brasileira de Crédito e Assistencia Rural (ABCAR) was organized in 1957, nine years after the first state "ACAR" group. ABCAR's purpose was to assume national leadership and thus serve as a phase out mechanism for Escritorio Técnico de Agricultura, Brazil-Estados Unidos (ETA). Up to now, ETA has provided technical assistance direct to the state agencies, while ABCAR concentrated on perfecting its administrative organization. ABCAR officials have now determined to employ a technical staff which will be trained by USOM and ETA technicians.

We are considering re-grouping the 11 ETA projects aiding extension work into one, Project 31, ABCAR. All technical assistance to the extension system, which reaches 12 states as well as four universities, will be provided through ABCAR. This should hasten the maturity of the national organization.

C. Reorganization of the National Rural University and Agricultural Research Center

Over a period of ten years, beginning in 1934, the Ministry of Agriculture built up a network of crop experimental stations and a university, known collectively as the National Center of Agronomic Research and Education. The group included regional experiment stations located in the North, Northeast, East, Middle West and South, a main station farm located at Kl. 47 south of Rio de Janeiro, and special Institutes for agricultural chemistry, sugar and alcohol vegetable oils, grapes and wine and agricultural minerals. The university consisted of a school of agronomy and a school of veterinary medicine.

The Institute of Animal Studies, separate and apart from this family, being a part of the National Department of Animal Production, carried the federal responsibility for animal research. The headquarters of the Institute of Animal Studies is also at Kl. 47.

Unfortunately, the high level cooperation between research and higher education dreamed of in the promotion of this arrangement was never realized. Over the years all of the Institutes gained practical autonomy from the central head by virtue of political appointments and political appropriations. Through the influence of local interest groups.

This year the university and main station experiment station were removed from the National Center setup and re-grouped as the Rural University of the State of Rio de Janeiro, by presidential degree. The livestock experiment station at Kl.47 was included.

The rural university at Kl. 47 had previously established an agricultural and home economics extension service in cooperation with the State of Rio de Janeiro. The university is in the process of establishing an agricultural information center patterned after those in the land grant colleges in the United States.

Bringing the experiment stations into the university program and adding a state extension service and an information center, should improve the level of instruction and greatly expedite the movement of technical information to the farm population of the Central States of Brazil. It could effect about 11 million rural people.

This movement was influenced greatly by the constant orientation and counsel which USOM advisors provided the leaders of the effected institutes over the past five years. Another important contributing factor was the USOM participant training program which took many of them to the United States where they became thoroughly sold on the land grant college philosophy.

The new organization will require more technical assistance than did its component parts under the old setup. It is anticipated that the new university will play a key role in the development of a national technical agricultural reporting system which will be emphasized in our 1961 program.

D. Extension Service annexed by Ceará State University

The extension work in the State of Ceará was started in 1955 as a part of regional supervised credit and extension project known as Associacao Nordestina de Crédito e Assistencia Rural (ANCAR). It became a semi-autonomous state agency in 1958, with the receipt of state financial support, becoming known as ANCAR-Ceará. Now, arrangements have been made for the agency to be annexed by the State University on January 1st. It will then be known as the Directorate of Agricultural and Home Economics Extension of the University of Ceará. Ties with the national extension organization will be maintained.

The University has also acquired the land on which to establish an experiment station. Thus, there is the probability that a land grant college type system may develop, presenting a greatly expanded opportunity to provide continuing education to the rural population of this northeast state.

This development is a product of the counsel provided by USOM technicians over the past four years. Dale Hoecker, who spent four years as extension advisor at Recife and who was largely responsible for this move, has been transferred to Fortaleza, Capital of Ceará, for a third tour in Brazil.

E. Increased interest in the Northeast problem

The Brazilian Northeast has long been recognized as one of the least developed areas of the world, with its people enjoying the lowest standard of living in the free world. The problem was brought to the forefront in 1958 by a prolonged drought which caused widespread starvation in the area. The problem was further emphasized when the drought was broken this year by almost equally widespread floods.

Institutional legislation has been enacted from time to time, to solve the problem (basically, lack of education, uninformed economic exploitation of resources and a general lagging of the economic development of the whole country), none of which have succeeded to date.

New, all-encompassing legislation was passed last year, creating SUDENE, the Superidency for the Development of the Northeast. SUDENE is empowered to control all federal expenditures going into the Eight Northeast States and is guaranteed a minimum of two percent of the country's budget (already exceeded). Being a government investment agency as well as a technical service agency, SUDENE has announced plans to include

in its program, industry development (steel, synthetic rubber and textiles), transportation (roads and harbors), hydroelectric power development (investments), irrigation development and farm labor resettlement. It is planned that the technical and theoretical recommendations for the agricultural art of the program, will flow from a central experiment station (facilities inherited from a preceeding, now subordinate agency). We have been requested to assist in activating the station and in advising on the research program.

At the same time, the Governor of the State of Pernambuco, a key state in the Northeast drought zone, has become interested in launching a complete agricultural development research program. James Haynes, agronomy advisor, Recife, has made preliminary study of the agricultural research possibilities in the State and recommended a program to the Governor.

The outcome of these two moves is yet unpredictable. However, it is significant that Brazil is facing up to the Northeast problem. We are attempting to keep our program sufficiently flexible to respond with technical assistance to all solid requests that we may receive.

F. Sao Paulo State Government maps new agricultural program

The Sao Paulo Government has been working on a "revisao agrária" for about two years. The program calls for, a) increase of production through the intensification of research and extension with improved interchange between these two functions, b) increased assistance to soil conservation, c) construction of country storage, d) construction of terminal storage, e) improvement of farm products technology and f) forced land development.

Funds for increased research activities have been allocated.

The Secretary of Agriculture has reorganized the Department of Crop Production (about 900 agronomists) to bring it more into line with the role of an extension service. A department of specialists (45 agronomists working with 16 crop species) has been established. This department includes an in-service training center which at the present time is offering short courses in extension and public information methods. Training in technical fields will come later. The director of the training center was formerly director of the Fazenda Ipanema extension training center which was sponsored by the USOM. Although independent from USOM project agreements, this development closely follows the pattern set in USOM demonstration projects.

There is a particular effort to replant abandoned coffee land with rubber. This is a USOM project connected activity which has been very successful since its inception in 1958.

Legislation for an expanded program in soil conservation has been passed. This is a USOM project connected activity.

It is presumed that the project for constructing country storage will follow recommendations made by USOM in 1956.

The sum of Cr$200,000,000 ($1,100,000) has been appropriated for agricultural products research.

There is a bill before the State Legislature which would establish an escalator tax on land according to size of property and intensity of use. The bill proposes no change in the present tax rate (1.7 per cent of valuation) on properties of up to 1,250 acres, a tax of 3.6 per cent of valuation on cultivated land in properties of over 1,250 acres, and up to 12 percent of valuation on uncultivated land in properties over 1,250 acres. It is proposed that the revenues produced by the 3.6 - 12.0 escalator, be used to buy land for resettling landless farmers. As could be imagined, this bill created a great deal of controversy.

BRITISH HONDURAS

The agricultural program of British Honduras has made little progress in the past four years. There has been a Director of Agriculture for only about half of that time, and the turnover among the sketchy force of senior officers has been almost complete. Long vacations and longer vacancies are the rule. At the low salaries offered, it is almost impossible for the Colonial Service to provide or keep capable staff. There is virtually complete dependence on overseas officers. Only one of the staff with an agricultural degree is a British Honduran.

When final arrangements were in process for establishment of the ICA mission, in mid-1956, the Department of Agriculture had been under the direction of the same person for several years. The program left a good bit to be desired and staffing problems had been difficult, but there was a fair measure of continuity to what had been done. Assistance was requested from ICA in helping to organize an agricultural extension system and to improve their agricultural credit system.

The Director of Agriculture went on leave at that time, and by the time the ICA mission was established, in November, 1956, it was known that he would not return. It was more than a year from the time he left until another Director arrived. The new Director was on the job about two years, and now for more than a year again, there has been no Director. Previous to the departure of the last Director, disagreements and personal feuding in the Department badly disrupted the Department's program. The staff was again decimated, and is only now beginning to be built up somewnat.

During the two-year period while there was a Director of Agriculture, ICA assisted in a pilot demonstration project in agricultural extension and developed a proposal for re-organization of the agricultural credit system. The Department and the Agricultural Credits Fund Management Committee accepted the recommendations for both activities and began putting them into effect, but when the Director of Agriculture left the colony, progress stopped.

The Department of Agriculture has been without a definite program for more than a year. A committee of local people, headed by an ex-patriate official, was established by the Governor to look into the agricultural policy and program, and to make recommendations. The committee completed its report at the end of November but it is still (in mid-December) being held in confidence by the government.

A new government, with local ministers exercising administrative authority, will replace the present ex-patriate administered government probably in March or April, 1961. It seems unlikely that there will be any significant changes in policy until the new government comes into power. USOM program planning in agriculture is being held in abeyance for the present.

C H I L E

CHANGES IN CHILE'S AGRICULTURAL PROGRAM

General Statement

An attempt to describe a "Servicio" type operation will not be made as most of you are familiar with this type operation and realize its advantages and disadvantages. Nevertheless, it should be brought out that the agriculture program in Chile has operated with a Servicio (DTICA) program since it began in 1951. Attempts have been made to encourage the taking over of this operation by the Ministry of Agriculture during the last few years. Due to numerous difficulties, including financing for the Ministry of Agriculture, GOC politics, etc., this has not been accomplished. It is anticipated that as a result of public demand, enough congressional support will be available to provide the necessary funds for the Ministry to assume this responsibility by the end of CY 1962, when the present DTICA agreement expires. However, at the present time it is difficult to predict the budgetary condition of the GOC two years hence.

Project Changes

The most striking overall change that has occurred in Chile's agriculture program has been the recent reorganization of the Ministry of Agriculture and changes in personnel to fit the new program which has been developed to serve the farmers. USOM/Chile feels that this is an outgrowth of Plan Chillán, which has now been phased out.

When "Plan Chillan" was inaugurated in three of the most backward provinces of Chile in 1953, its objective was to awaken the farmers to the technical information that could help them raise their agricultural production and living standards. A large percent of USOM/Chile's Food and Agriculture efforts was made in these provinces. The projects carried on in the Plan Chillán area included: Administration, Agricultural Credit, Agricultural Economics, Agricultural Extension, Agricultural Training, Agricultural Mechanization, Agricultural Research, Communications Media, Livestock Improvement, Library, Soil Conservation and Forestry, and Water Resources. These programs were tied very closely to the College of Agriculture which was established in Chillán as a part of the "Plan," and which is now attached to the University of Concepción.

Upon the signing of the zonal agreements with the Ministry of Agriculture on August 18, 1960, Plan Chillán was phased out. The zonal agreements will be discussed later; first, the accomplishments of Plan Chillán should be reviewed. Besides the numerous ingenieros agronomos that have received training since 1953, the following accomplishments have been made:

1. A Faculty or School of Agriculture established, patterned after the U. S. Land-Grant Colleges.

2. Farmers have accepted technical assistance and are applying improved practices on their farms.

3. An effective experimental station has been established.

4. A modern milk plant with a capacity of 70,000 liters per day has been established.

5. 150 kilometers of farm-to-market roads have been built or improved to serve as all-weather roads.

6. A seed growers association was organized, a seed cleaning and processing plant equipped, and a country-wide seed certification program established.

7. A 50 hectare forest nursery was established. Since 1954, approximately 25 million tree seedlings have been distributed.

8. An effective sand dune control program was established.

9. A Supervised Credit program was established.

In addition to the above accomplishments, there has been a considerable increase in improved pasture seeding; a 20 percent increase in milk production in the pilot DHIA project with 2,300 cows under test; 8,390 cows inseminated with 2,090 of these being bred during the past breeding season; expanded use of fertilizers; improved irrigation practices adopted; farm reservoirs built; practices adopted to produce cleaner milk; new and improved seed varieties distributed to farmers through the research program; and many other improved farm practices adopted by the farmers that have consistently increased their yields. Economic studies are now underway to determine the cost benefit ratio of various farm practices.

As a result of the work accomplished in the Plan Chillán and country-wide economic studies, which are now being used as a basis for individual farm and country-wide planning, the Ministry has absorbed the economic study group of [illegible]A and has given the Department of Economics more importance in the Ministry structure. Two North American advisors are now working closely with the department and are located in the Ministry offices.

USOM/Chile will continue to assist the University of Concepción at Chillán by providing short-term professors in an advisory capacity in assisting the various departments in organizing their course of study and research programs. USOM/Chile will also continue its projects with the vocational agricultural schools and the Institute of Rural Education in addition to the zonal projects.

Under the recent general reorganization plan of the Ministry of Agriculture, the former Sub-Department of Forestry became a full-fledged department. There has also been renewed activity in consideration of passage of a new Forest Law in lieu of the ineffective and outmoded law of 1931. USOM forestry advisors are working diligently with Chilean foresters to effect the passage of this law.

Although the Water Resources project was a country-wide project with the

Ministry of Public Works, a considerable part of its efforts was carried on in the Plan Chillán area. One of the accomplishments in this area was the preliminary planning of an irrigation project and the exploration of a foundation for a dam on the Diguillín River. This dam, when completed, will furnish supplemental irrigation for some 17,000 hectares now under irrigation, and will furnish irrigation water for 21,000 additional hectares not irrigated at present. ICA is continuing to provide short-term consultants as required.

Another project that operated outside of the Plan Chillán area, and which now has been phased out, was the Agroservicio, a Farm Management program. USOM/Chile has agreed to provide a farm management specialist on its staff if the Ministry considers it necessary.

One of the most successful projects, that not only operated within the Plan Chillán area but in 12 other provinces as well, was the artificial insemination program which is being phased out on the part of the Servicio during the present fiscal year. During the life of this joint Ministry-DTICA project which was initiated in 1953, the following accomplishments were made:

Two main centers were established with a total of 20 bulls.

Ten sub-stations were established.

Two farmer-owned sub-stations were established.

Thirty-one farmers are cooperating, using their own inseminators.

Through the past breeding season, 55,955 cows had been inseminated through the program centers and sub-stations, and 12,852 cows inseminated through semen sales, making a total of 67,484 cows inseminated. More than 18,000 of these were served in the last breeding season.

During the past year, 68 percent non-return to first service was maintained, based on 60-90 day period.

The production of artificially bred daughters was raised 1,184 pounds from 8,538 to 9,722 on 209 daughter-dam comparisons.

Zonal Convenios

Both the Ministry of Agriculture and USOM/Chile felt that "Plan Chillán" has been effective; however, its scope was too narrow to have the desired effect in raising Chile's overall agricultural production. Even though it had been clearly demonstrated in the three provinces of Plan Chillán that technical assistance would increase agricultural production, the problem of extending this type of program to a larger number of farmers remained the obstacle to overcome. In many provinces, ingenieros agronomos occupied posts with no means of transportation, and in the cases where there was transportation available, they were "forgotten men," as most department heads were stationed in Santiago and very seldom gave field supervision.

In 1959, USOM/Chile presented a plan to the Ministry of Agriculture for "spreading" the Plan Chillán type of program to reach more farmers. Under this plan more responsibility would be placed in the field, insofar as program operations were concerned. This suggested plan was adopted almost in full and the Ministry took a new approach in its agricultural program for the country.

Under the new organization, Chile is divided into five zones, each being headed by an experienced senior Ministry technician who represents the National Director of Agriculture in the zone. These Zone Directors have complete freedom and authority to carry out the Ministry's agriculture program within the area. In reality, they are Sub-Directors of Agriculture and responsible only to the National Director of Agriculture within the Ministry.

All departments within the Ministry are represented in this new zonal program. The department heads are responsible for the technical backstopping of the zonal technicians in the various fields and supporting the Zonal Director in program planning so that the zonal programs fit into the overall country program.

Through the new organization, the various agriculture offices extend agricultural information to the farmers throughout the zone and serve to relay agriculture problems through the zonal offices to the Ministry of Agriculture. Specialists in each zonal office work closely with the technicians in all agricultural field offices within the zone.

The Servicio (DTICA) has working agreements in three of the five zones which include the majority of the central valley, extending from Curicó south to Magallanes (a total of 16 provinces).

All North American technicians are on call to all five zones, but more particularly to the three southern zones. They serve as advisors to the Zonal Director, as well as the zonal specialists in their particular field.

USOM/Chile is optimistic with the new approach taken by the Chilean Ministry of Agriculture. It is felt that not only will a greater number of farmers be reached but that they will be reached more effectively, resulting in increased farm income.

Future Program Possibilities

The possibility of additional funds for social development in Latin America has resulted in more thought being given by USOM/Chile to new and expanded programs to further improve the living conditions of Chile's rural population. One of the outstanding needs by Chilean farmers today is credit to improve and expand their farming operations. The colonization program, presently being carried on by GOC, needs financial support to effectively do what is needed. An expanded extension and community development program is also needed.

The above named programs, with possibly others, would complement and strengthen the new zonal programs in their goal of raising the standard of living of the Chilean farmer and in increasing Chile's agricultural production.

C O L O M B I A

FOREWORD

The fertile soils and favorable climates in Colombia are suited to almost any kind of agricultural production. As in other tropical countries coffee, sugarcane, bananas, cotton, tobacco, and rice are important crops. Due to the many highland plateaus or "sabanas", Colombia is also a large producer of such temperate climate commodities as wheat, barley, potatoes and corn. A recent estimate showed that some 63% of the total working force in Colombia depends on agriculture. Over 40% of the G.N.P. is derived from agriculture and in 1958 it was estimated that 81.9% of the value of total exports was agricultural.

Colombian agriculture continues to make progress especially in the production of basic commodities, technological improvements, and general efficiency. But farming practices, in most areas, remain poor. yields are low, and subsistence is barely maintained. Complicating the system is the pattern of land tenure, the cropping system, and the general underemployment of some resources.

USOM/Colombia, through the Servicio Técnico Agrícola Colombiano-Americano (STACA), is providing technical assistance to Colombian Agriculture. The division has been especially useful in testing new projects on a demonstration basis, for possible diversification, alternatives, and improvements in the agricultural sector of the Colombian economy. STACA is providing U.S. technicians and consultants with essential backstopping, and facilitates the turn over of project activities to Colombian institutions, after they have proved their worth.

CURRENT PROGRAMS

STACA is currently engaged in or associated with some eleven areas of activity with a staff of 29 U.S. technicians. A total of 204 Colombian personnel are employed. Activities include administration; program planning; extension; forestry; agricultural engineering and farm mechanization; supervised credit; livestock improvement; fiber (kenaf) development; cacao; yucca development and land utilization and development.

It is felt that the Servicio, through its establishment of sound management, administrative policies and procedures and effective administration is presenting an example of efficient governmental activity to its personnel and to its counterpart and cooperating agencies.

STACA has gained the confidence of the Ministry of Agriculture, so that cooperation and assistance in planning and developing is at a very high level. This also holds true for other cooperating agencies such as the Caja Agraria, Banco Ganadero, Instituto de Investigaciones Tecnológicas and Corporación Autónoma Regional del Cauca (CVC).

To encourage production of exportable agricultural commodities for dollar earning and to increase production of items now imported, the Government of

Colombia is levying a special tax on certain imports such as cacao and wool. The resulting fund is divided among the foment campaigns of the Ministry of Agriculture and semi-autonomous entities for promotion of the desired products.

A brief description of each STACA activity follows:

Administration (Project 2)

This project is providing the planning, direction, supervision and coordination of the Agricultural Program in Colombia. It is responsible for the supervision and direction of Servicio employees and technicians of the Food and Agriculture Division and for providing administrative services for these personnel. It also executes all fiscal and budgetary activities of the Agricultural Program.

It is setting an example of efficient administration in fiscal management, procurement and other managerial functions, and developing the administrative and supervisory capacities of Colombian employees of STACA through supervised on-the-job training.

Agricultural Program Planning (Project 1)

This project is active in developing guidelines for the program planning of agricultural technical assistance in order that the F & A Division may achieve maximum impact on the agricultural sector of the Colombian Economy. Any work of an economic planning nature is the responsibility of this section.

Special effort is being devoted to Agrarian Reform Problems and in compiling essential data on the subject for use by consultants and survey teams in formulating recommendations.

Agricultural Extension (Project 15)

Special attention is being given to the coordinated planning and programming of public and independent or semi-public entities such as the Ministry of Agriculture, Departmental Secretariats, Cafeteros, Instituto de Fomento Algodonero (IFA), Tobacco Federation and Corporación Autónoma Regional del Cauca (CVC), all with some kind of research and extension services of their own. Steps have been taken to use all these sources of experience, talent and funds in an integrated National Extension Service.

Extension specialists are assisting in development of back-stop support for specialized activities such as supervised credit and cooperatives.

Preliminary plans based on a study made by an ICA specialist, are being made for the organization of a School of Home Economics in a still to be selected University. The purpose is for home improvement work to keep pace with other phases of Extension.

Closer working relationships are being established with the Rockefeller sponsored research organization, Departamento de Investigaciones Agropecuarias (DIA), to make results available for practical application in crop and livestock improvement.

With STACA assistance the newly established Information Section of the Extension Division, Ministry of Agriculture, is producing educational aids for field use and twice-a-week radio programs on a nation-wide chain. Responsibility for extension materials production, now largely that of STACA's Communications Section, is being transferred to the new section as personnel are trained.

Forest Resource Development (Project 8)

Major emphasis is being placed on cooperation with the Ministry Section of Forests in carrying out plans and in providing guidance in the development of policies for the management of National Forests, administration of timber concessions, development of nurseries and management of watershed projects. Work continues with the Section of Forests in the collection, extraction, handling and storage of local available tree seed and in the importation of seed from other countries. Technical and administrative assistance is provided to the municipalities and other organizations in the development of the watershed management projects. Training of Colombian personnel is an essential part of the program and special effort is made to provide training facilities both for professionals and forestry students.

Six million pesos ($6,000,000) have been set aside for reforestation in a recent P.L. 480 loan agreement. Substantial support is being given by STACA to the Pulp and Paper Industry in locating and developing forest as a source of pulp.

Agricultural Engineering (Project 13)

This project, located in the irrigable areas of the North Coast, replacing the Farm Machinery Project which gave major emphasis to land clearing, is set up to train operators and mechanics in the use, application and maintenance of farm machinery; engineers in irrigation and drainage practices; and farmers in diversified agriculture.

This project centers on an irrigated 640 hectares farm known as "San Joaquín", bordering on the Magdalena River south of Barranquilla. Construction of the buildings, preparation of teaching materials, land clearing and leveling, and installation of irrigation and drainage systems are in progress.

Situated in an extensive irrigable area where its influence can radiate to the benefit of many farmers, emphasis will be on such crops as kenaf, yucca, pasture grasses, beans, hybrid corn, cowpeas, legumes, tomatoes, and field crops which can be converted into animal feed concentrates. This irrigation program should be an important factor in improving the economy of the "Costa Atlántica" area which usually lacks rainfall for six months of the year. To support this broad program some 14 million pesos, under a PL 480 loan agreement, have been ear marked for drainage and irrigation in the Department of Atlántico.

Supervised Credit (Project 11)

This pilot project is organized on the basis of providing loans to family type farmers who are unable to obtain adequate credit elsewhere.

Although no loans have been consumated to date, applications are being accepted and are beginning to be processed.

Four Colombian professionals currently make up the staff of the Credit Project. These include a project chief, a zone chief in the pilot area, and two supervisors.

Livestock Improvement (Project 16)

This is a new project to improve methods of breeding, feeding and managing livestock herds. The Livestock Improvement Program was drawn up in cooperation with the Ministry of Agriculture and certain banking institutions to promote and increase livestock products, especially beef, to meet the needs of a rapidly increasing population. Though the formal project agreement has not been signed to date, it is planned that this will be done through more effective disease, pest and parasite control and up-grading of native cattle through importation of better breeding stock and artificial insemination.

STACA assistance on organization and training has been requested by groups in six states interested in establishing artificial breeding associations. These groups are prepared to buy their own equipment. STACA is now organizing training programs in response to these requests.

The sheep development program, a part of the Livestock Program, was initiated during the past year to increase production of fine wool for the clothing industry, encourage domestic consumption of lamb, correct dietary deficiencies, provide new sources of income for farmers and contribute to the expansion of a national industry.

Soft Fiber Development (Project 12)

This program was originally slated to be the Kenaf Development Project. The original agreement is being amended and the objectives amplified to include a yucca development campaign. The revised project will be called "Tropical Crops Development". It is likely that in the future other special crops will be included.

Colombia utilizes an estimated 31 million bags annually in which to pack agricultural and other produce for export and for the internal market. There will be an estimated 10 million bag deficit this year due to a recent embargo prohibiting importation of jute fiber and manufactured bags.

The STACA Kenaf Development Program has selected the Colombian North Coast as a pilot region. This year adaptation trials of kenaf and other soft fiber producing plants from all over the world are being conducted. Two proved varieties of kenaf, Cuban 108 and 2032, are being multiplied this planting semester. It is expected that 10,000 pounds of seed of each variety will be available in January 1961. This seed will be planted on farms of cooperators for fiber production and under contract for further seed increase.

The Ministry of Agriculture recently received a special appropriation to increase yucca production. STACA will receive some of these funds to begin increasing production on the North Coast in quantities sufficient to substain a commercial starch extraction plant with a daily raw yucca capacity of 50 tons. Improved varieties will be imported from Madagascar and possibly Thailand for increase and distribution at cost to collaborators of the project.

This STACA program will work closely with a North Coast cooperative with a membership of more than 2,500 farmers. The farmer members will receive STACA technical assistance. The co-op will facilitate production credit to members and will guarantee purchase of the crop. The Caja Agraria will furnish a supervised credit technician and machinery to the cooperative for member use.

This program will be used as a basis for a new STACA comprehensive approach in the agricultural field in that this activity involves several of the STACA line projects such as supervised credit, extension and agricultural engineering.

Cacao Development (Project 14)

The Cacao Program is one of STACA's oldest. The project with its trained personnel has been integrated into the Ministry of Agriculture National Cacao Campaign, and all work is done on a mutually agreed upon plan. STACA personnel are assisting in advisory capacity. Program objectives are production and distribution of improved planting materials, assisting cacao farmers to rehabilitate existing plantations and establish new ones through a program of technical instruction and demonstration, and the preparation of educational material for distribution to cacao farmers.

Grass and Legume Improvement Program (Project 10)

This Project is being phased out during 1960 and the U.S. technician now acts as advisor counterpart to the Chief of the National Pasture Campaign of the Ministry of Agriculture. The STACA Pilot Pasture Project served as a model for establishment of 11 similar pasture seed multiplication plans in as many states which collaborate with the National Pasture Campaign. Budgetary support in the Ministry has increased from 17,000 pesos for 1955 to more than three and one half million pesos contributed by the Ministry, STACA, the 11 States, Caja Agraria and División de Investigación (DIA) in 1960.

Land Utilization and Development

In order to assist in the complex and ambitious Agrarian Reform Program, as requested by the Colombian Government, USOM/Colombia, through its Food and Agriculture Division, has initiated a new project in this field.

The USOM Project, Land Settlement and Development, is to be coordinated by the proposed National Agrarian Reform Institute, the Agricultural Credit Bank and the Ministry of Agriculture. It is to be partially financed by U.S. funds and provided with U.S. technical assistance.

This project will provide for feasibility studies, advisory services and on-the-job training of Colombian technicians in order to accelerate the colonization and parcellization activities in Colombia. It is part of a broader country program in which major emphasis will be placed on the development of public domain and other lands for agriculture, thus improving Colombia's land tenure pattern.

ACCOMPLISHMENTS

Administration (Project 2)

Progress has been made in establishing sound management and administrative controls in accordance with well defined policies and procedures. Considerable progress has been made in training Colombian personnel in administration both through supervised on-the-job training and through the participant training program.

Agricultural Program Planning (Project 1)

Special effort has been devoted to Agrarian Reform problems, especially in accumulating essential information on the subject for consultants and special survey teams, which have been assisted by the project personnel and with project facilities. Economic reports have been prepared from time to time by Project 1 in order to assist in the overall planning for technical assistance for the Food and Agriculture Division.

Recent contributions of the Program Planning Project and the relation thereto of STACA activities include the following:

1. An economic report on the feasibility of yucca production in the Atlantic coastal area. Special emphasis was given to the ways in which STACA could participate in the development of such a program.

2. Accumulation of background information in the preparation of several reports on the Land Reform Program with specific reference to the work of the Food and Agriculture Division.

3. A survey on the feasibility of Kenaf in Colombia. This study dealt with alternative crops with which Kenaf might compete and also the way in which STACA could contribute most to the development of such a program.

Agricultural Extension (Project 15)

To integrate the extension activities of independent and semi-public entities such as Cafeteros, Instituto de Fomento Algodonero (IFA), Tobacco Federation and Corporación Autonoma Regional del Cauca (CVC), representative Coordinating Committees have been organized in five of the seventeen Departments."Plan of Work" programs have been developed in which all extension activities are coordinated to avoid overlapping and duplication, and with the goal of achieving a unified Extension Service. The extension education services newly started by the Ministry of Public Health and the Ministry of Education are also participating in this planning.

One of the major problems in the development of an agricultural extension program in Colombia is the lack of dedicated and trained personnel in numbers sufficient to meet the requirements of present expansion plans. Growth is indicated by the 17 States now organized with positions for one Extension Supervisor each and with a total of 67 sectors (county) offices. During the next year this number will be increased to 100. In addition, the Cafeteros and the Cotton Federation maintain a total of 65 sector extension offices and the Agricultural Secretariat of Antioquia has 15.

To meet training needs, a regional extension training center was established in the Facultad de Agronomia, Palmira, in 1958, with a full time extension professor. Enrollment of fourth and fifth year students in extension courses numbered fifty-five last year. On this model full time extension professorships were established in the Universities of Medellin (Agronomía) and Caldas (Agronomía and Veterinaria). An extension professor will be added to the Facultad de Veterinaria, University of Bogotá, in 1961, and the Facultad de Agronomía and the San Jorge Vocational School of Ibagué are asking for help in setting up a joint professorship. Four year extension students from Palmira and Medellín receive field training in extension sectors during vacation.

Plans were completed and accepted by the GOC late this year for the phasing out of the Extension Pilot Project of Boyacá. Started in 1954, the project had accomplished its purpose of setting up models for extension work in agriculture, home improvement and youth clubs and for training supervisory and field personnel. Since the start of the National Extension Service, Ministry of Agriculture, in July, 1958, personnel trained in Boyacá have been transferred to fill key supervisory and professional positions in the National system and a few have joined private enterprise as technicians. Their number is small, but their contributions have been significant. The program in the Department of Boyacá will continue as part of the National Extension Service in cooperation with local public and independent entities.

With the addition of a full-time agronomist to STACA extension staff, closer working relationship has been established with the Rockefeller sponsored research organizations. DIA. Important research work done by this group over a period of ten years has reached the stage where it can and should be translated into extension application in rural areas. This will be a major activity of the STACA staff during the next year. Further work along this line could be done with the addition of a livestock specialist.

An Information Section, headed by a Turrialba trained man, was added to the Extension Division of the Ministry of Agriculture, this year.

Extension information and education aids issued during the last several years have been produced chiefly by STACA or locally under STACA guidance. As the National Extension program expands the need for bulletins, leaflets, audiovisuals and other media aids to support field work will grow. With much assistance from the Inter-American Institute of Agricultural Studies (IAIAS), Turrialba, and with constant guidance from STACA, the new Information Section is being organized to perform this service for all subject-matter sections of the Extension Division. As competent personnel are recruited to properly staff the Section and production facilities are improved, STACA plans step by step transfer of materials production to the Ministry.

The Information Section has made a good start on a twice-a-week radio program on Radiofusora Nacional and is about to start a weekly series on the Sutatenza network. Negotiations are now underway for asistance on serialized presentation on the National T. V. system.

The Section also recently started publication of a monthly News Letter addressed primarily to extension workers for exchange of plans and new ideas.

Forest Resource Development (Project 8)

In the Piedras Blancas program (Medellín), a previous STACA endeavor, the Forest Institute of the National University has taken over the administration of the project. STACA is still giving technical assistance and supports the project by paying supervisor salaries and supplying seeds and tools.

During the C.Y.60 some 240,000 trees, representing 16 species, were planted in the Nausa Forestry Project. In Piedras Blancas, 101.000 trees were planted and in the Boyacá Project 82.000 trees were planted. The latter project now has a representation of 15 species.

Through the influence of the STACA Forestry Project the Ministry of Agriculture Section of Forests has accepted improved methods of handling tree seed. This has resulted in a big saving.

Twenty-two forestry school students have received on-the-job training on three different watershed projects in Colombia. Two professional foresters from the Ministry of Agriculture received three months of training in the U. S. Four professional foresters received three month training courses in Puerto Rico. A forest inventory consultant provided by USOM designed a plan for a National Forest Inventory. Several Colombian foresters were given training on inventory procedures.

Agricultural Engineering (Project 13)

About one half of the area of San Joaquín, the center of the agricultural engineering project, has been cleared and about half of this has been partially levelled. The overall irrigation and drainage system has been designed, and the construction of one canal and the flume is underway. One sprinkler system for about 20 hectares is in use, and another pump is ready for gravity irrigation of about 12 hectares more.

A beginning has been made on crop planting but, except for those crops which can grow without irrigation, no more can be planted until the large pumping system is completed.

Buildings needed for early use have been designed, and five are under construction. The principal internal roads of the farm are almost complete.

Some on-the-job training has been done. Training manuals are being prepared for use in the training courses to begin next year. A Colombian engineer left in August for a year study of irrigation in the United States.

Supervised Credit (Project 11)

A new Project, Supervised Farm Credit, was initiated early in F.Y.60. A Project

Agreement between USOM/Colombia, the Ministry of Agriculture and the Agricultural Credit Bank was signed and a pilot zone, located in the State of Tolima, selected to carry out program objectives. About 4,335,000 pesos from theU.S. P. L. 480 Loan Fund have been designated for use in this project by the Agricultural Credit Bank. STACA will supply the technical assistance involved.

Recently a Credit Advisor from the American International Association for Economic and Social Development in Brazil completed a short-term assignment advising on a plan for the selected pilot program of Supervised Credit. He also recommended rules, regulations, forms and other operating procedures in his survey conclusions.

It is felt that considerable progress is being made with this program and the future is presently bright for improving and expanding Colombian agricultural credit facilities.

Livestock Improvement (Project 16)

Twelve million pesos from the PL 480 Loan Fund have been alloted for the development of the livestock industry in Colombia.

The restrictions barring importation of breeding stock have been removed and livestock are now being brought in duty free from the USA and Europe. Several large shipments of Charrolaise cattle have arrived from France to be crossed experimentally with native cebú and criollo breeds.

The Ministry has taken several steps to stimulate interest in livestock production. For the first time in many years restrictions on exports have been relaxed and exports up to a total of 10,000 headsat a rate of more than 500 per month are now permitted. Livestock shows are encouraged by the Ministry of Agriculture. Several new Expositions have been organized. STACA's Livestock Advisor has assisted in judging at nine shows and in conducting demonstrations on farms in selection of breeding cattle and improved and general farm management practices. The milk testing program for the Holstein breed has been expanded to include six departments (States) and plans are to cover other dairy breeds.

In anticipation of an enlarged cattle industry much interest is shown, especially by private enterprise, in meat packing plants and improved transportation. A plant with a daily capacity of 400 cattle and 600 hogs has recently been opened in Barranquilla. This is important for Colombia where almost all meat marketed is sold before it is 15 hours old, and usually is priced without regard to quality or grade.

STACA plans for an intensive extension education campaign on sheep raising are well underway. Two veterinarians have been employed in the extension project to prepare appropriate literature and audio-visual aids. They have written 11 bulletins and have started on 20 or so more. One veterinarian is working in local sheep extension programs in Boyacá.

Selected breeds such as Romney Marsch, Corriedale, Merino, and Suffolk are being imported. Experimental farms have been located in several selected areas for up grading the criollo sheep type, to demonstrate better management practices and to train personnel.

A five million peso fund has been set up in the Ministry of Agriculture to promote the campaign. Several entities are cooperating: STCA, Ministry of Agriculture,

Rockefeller Foundation (DIA), Colombian Association of Sheep Breeders, the Agricultural Credit Bank, private banks and Departmental Secretariats of Agriculture.

Fiber Development (Project 12)

Active work has begun on the kenaf project. A full-time agronomy advisor has been assigned to the work with permanent headquarters in Barranquilla, where the crop is expected to be developed. A kenaf seed crop will soon be harvested from the STACA farm in Barranquilla. The improved seeds will then be distributed to farmers for more propagation and actual fiber harvest.

Cacao (Project 14)

The cacao activities of STACA have become largely extension in character. They serve the Ministry's Cacao Campaign through STACA's Division of Extension. After November 1959 the services of the USOM advisor in cacao were terminated. This activity, however, will continue in force under the direction of a Colombian technician.

The National Cacao Campaign has not only the full support of the National Government of Colombia but also that of the cacao growers and chocolate manufacturers. Through the use of the combined resources of these organizations, including that of USOM and STACA the outlook for Colombia becoming self-sufficient in cacao in the near future appears very promising.

Land Utilization and Development

Six new advisors for the Agrarian Reform Project are being recruited. USOM assistance has been provided in helping GOC in the preparation of certain U.S. loan proposals and documents. A short-term consultant from the Bureau of Public Roads was furnished by USOM in order to assist with the planning and specifications of essential roads leading to and within, the colonization projects. However, because of the lack of positive plans and policies of the GOC he was not able to make a substantial contribution.

GOC has been most active in providing new legislation which would outline and set forth a new legal basis for Agrarian Reform in Colombia. A bill is presently before the Congress which is broad and comprehensive in nature and basically:

1. Calls for new institutions to exercise broad power in the agrarian reform field. These institutions will include the National Institute of Agrarian Reform, a watch-dog Social Agrarian Council and the National Agrarian Fund.

2. There will be an attempt to decentralize actual operations on agrarian reform along regional lines.

3. Modification of Law 200 of 1936 will be proposed, with the purpose of transferring large amounts of uncultivated land holdings to the Government more rapidly and with less red-tape than in the past.

(Law 200 provides that private land holdings can be taken over by the Government if they are not being used and have not been used for over 10 continous years).

4. Expropriation of land is contemplated, but actual expropriations will not be determined on the basis of any arbitrary limit on the size of land holdings but rather on the basis of social need.

5. The nature of the payment for expropriated land will vary according to the degree of use to which the land has been put before expropriation.

CHANGES IN COLOMBIAN AGRICULTUREAND EFFECTS ON USOM PROGRAMMING

Administration (Project 2)

No significant alterations in Administration Programming are likely to result from currently anticipated changes in Colombian Agriculture.

Agricultural Program Planning (Project 1)

As a result of increased emphasis by GOC on marketing, storage, and usage of agricultural products, Project 1, Agricultural Program Planning, for the next year intends to emphasize marketing studies as a partial basis for setting up an orderly and uniform marketing system in Colombia. Two marketing studies are planned with GOC agencies on usage, storage, and marketing of agricultural products. These studies will probably be tied in with a US$ 28,000.000 peso PL 480 loan designated for improving agricultural storage facilities. This was recently signed by the U. S. and the Government of Colombia. It is planned also that the Project will devote more time to the principal program objective which is the development of guidelines for STACA, in terms of studies for new projects, and the analysis and evaluation of existing projects, in order that the entire program might achieve maximum impact in stimulating agricultural development in Colombia.

As the Colombian economy becomes more complex economic analyses must become more refined and analytical. For this reason it is anticipated that the Project will undertake studies more comprehensive and qualitative in nature, and the existing staff will presently need to be increased to meet new program demands.

Agricultural Extension (Project 15)

A start has been made toward closer integration of all research and extension services, public, semi-public and independent. Shortage of personnel and funds requires coordinated use of all resources. Entities such as Cafeteros, Tobacco Federation and Corporación Autónoma Regional del Cauca (CVC), have rural programs which are being tied in with STACA planning.

To meet the growing need for trained extension personnel USOM/Colombia, in cooperation with the Ministry of Agriculture, has enlarged preservice, inservice and participant training programs. Full time professorships in Agricultural Extension have been established in three universities and two more are planned to start next year. A School of Home Economics is planned for a still to be selected University. Training work has increasingly involved efforts of all STACA extension advisors.

The Extension Pilot Project in the Department of Boyacá, having served its purpose as a demonstration and training area, has been phased out and the program will be carried forward by the National Extension Service jointly with local entities. This change has made possible the assignment of advisors to new broader areas of work.

Results of work done by DIA, a Rockefeller sponsored research organization, over a period of years, is being prepared for extension application in the field by a STACA agronomist. This is a step toward more use of basic research work [illegible].

Additional extension specialists are required to prepare extension materials in other subject-matter fields in order better to relate basic research to practical farm needs.

Forest Resource Development (Project 8)

In a recent reorganization of the Ministry of Agriculture, the Forestry Division, the main cooperating agency of the STACA Forestry Project, was affected by several changes.

For over two years STACA has advised the establishment of three forest administrative centers on the country's most important forests of the Pacific Coast. The reorganization of the Ministry provided for the implementation of these centers including building construction and hiring of personnel. The implementation of the administrative centers will increase the effectiveness of technical assistance rendered by USOM.

Another GOC action recently transferred the authority for granting timber concessions to the Governors of the States. This has confused the administration of the country's national forest and impedes, to some extent, the technical assistance rendered by USOM, because there are now two government agencies responsible for administrating timber concessions.

The Section of Forests of the Ministry of Agriculture had started three watershed projects and also has combined efforts with the District University Forestry School for a ranger type school to train sub-professional personnel.

There are signs of progress in these endeavors and USOM will continue to support the Section of Forest of the Ministry of Agriculture in its efforts to expand.

No other significant changes in forestry program are anticipated.

Agricultural Engineering (Project 13)

The Farm Machinery Project, which was engaged primarily in land clearing operations, was replaced by an Agricultural Engineering project. This represented a definite change in policy by GOC in that in closing out this activity government provided custom service to farmers was discontinued. It was decided that this service should be provided by privately owned and operated equipment. In order to facilitate this new approach the GOC adopted a policy making credit more readily available to purchase machinery for use in custom work by private operators.

Operating on a broader scale, the new project is designed to train operators, mechanics and engineers in the application, maintenance and use of farm machinery, in irrigation and drainage practices; and planning and harvesting a variety of crops in the rich irrigable areas of the North Coast.

Supervised Agricultural Credit (Project 11)

Insufficient credit to farmers, both in short-term production loans and long-term improvement loans, is a major factor in limiting the expansion of agricultural production in Colombia. Hence, this project was initiated as a pilot and training operation which will apply the principles of supervised credit to agriculture and livestock production in Colombia on family-type farms. The project will be jointly

operated by the Agricultural Credit Bank and the Food and Agriculture Division of USOM/Colombia. The Bank will supply the capital for loans and the Food and Agriculture Division will supply technical assistance on improved management practices to farmers in selected zones.

As presently planned the Food and Agriculture Division is expected to provide technical assistance to the Supervised Credit Program in training Agricultural Credit Bank officials in supervised operation on the farm level, asisting the Bank in the effective usage of loans through technical supervision of the operations and to assist the Bank in improving overall credit operations throughout Colombia.

Livestock Improvement (Project 16)

During the last six months the livestock development program, officially known as the National Minimum Five Year Livestock Developme Plan, of the Ministry of Agriculture, has been greatly accelerated. Changes include removal of import restrictions and the importation of selected types of cattle and sheep for breeding purposes, and relaxation of restrictions on cattle exports to permit sales abroad up to a total of 10,000 head per year. Cattle expositions are being sponsored and STACA's livestock advisor assists in judging shows and demonstrations in cattle selection and general farm management. Milk testing programs are being expanded and now include six States. Artificial insemination associations are being organized under STACA guidance. Stimulated by this action in livestock development, private enterprise is showing much interest in processing plant investment. A meat packing plant was recently opened in Barranquilla.

PL 480 loan funds in the amount of 12 million pesos have been earmarked for development of the cattle industry, and 5 million pesos of the Ministry's special "fomento" fund have been alloted to the sheep improvement campaign. STCA is planning intensive extension education support for these programs.

It is quite likely that the growing interest and determination of the GOC to carry out an effective and far-reaching Land Reform Program will result in more and more concentration of our aid efforts in this area. Our approach will be determined to a large extent by the land reform policies finally adopted by the Congress which is now heatedly engaged in debating the controversial issues involved.

CVC (Cauca Valley) Irrigation and Development

With the expansion of irrigated areas in the Cauca Valley and the settlement of the watered lands, new problems relating to water management, access fees, farming practices, etc. are becoming more and more pressing. As a result of urgent requests by CVC, and supported by recommendations of an ICA engineer on TDY to Colombia, a U.S. water resources engineer is now being recruited.

STACA has had an extension advisor in the area for two tours of duty. He was highly sucessful in establishing general extension work patterns. However, as irrigated farming expands in the Valley, additional and specialized extension acsistance will be needed.

PROBLEMS

Basic to the social and economic problems of Colombia, particularly as they affe

STACA operations, is the historical pattern of land tenure, specifically that of latifundio and minifundio and a population growing at the rate of approximately 3 per cent annually.

Other problems, such as poor roads, educational and health facilities, and a general underemployment of resources are prevalent. With 63% of its total population on farms and over 40% of the GNP being derived from agriculture, Colombia must face the needs for a general land reform and settlement program, mechanization, and improved research and land utilization.

A persistent problem affecting the entire Colombian economy and a constant source of anxiety to businessmen, farmers and political leaders is the almost exclusive reliance on coffee as the earner of foreign exchange.

The obvious solution is diversification. The production of other goods and commodities to earn or save dollars would help to absorb the shocks of fluctuation in the world coffee market, would create greater economic stability and the confidence needed for long-range development planning.

Diversification programs, however well conceived and outlined, bring their own new and perplexing practical problems. They involve such factors as changes in fixed patterns of life and work, the resettlement of people, capital investments in new and untried enterprises, and the finding of new markets.

Another important complication in program development and execution is the frequent turn-over in Ministries and their policy making officials. For example, STACA and Minag specialists have a Livestock Development Project ready to go but there have been long delays in obtaining signatures required to get started on a firm agreement basis because of frequent changes of Ministers.

The recent GOC action transferring authority for granting timber concessions to the Governors of the States has confused the administration of the country's national forest and impedes technical asistance by USOM. Country-wide indiscriminate cutting, burning and destruction of the Nations forest and watershed resources continues to be a problem.

A problem in connection with development of a National Extension Service is the avoidance of duplication of effort by public, private and semi-autonomous entities all with agricultural promotion interests. While a start toward coordination has been made, the delineation of areas of responsibility, the pooling of resources and the cooperative training of personnel present questions still to be solved in practice.

Development of personnel training programs adequate to meet the needs of expanding activities continues to be a pressing problem. The need for subject-matter specialists to train practical technicians and supervisors to backstop field work is especially urgent. In general most GOC agencies are faced with the problem of untrained profes - sionals. Basic agricultural and especially economic research is improving but still greatly deficient.

COSTA RICA

Important Changes in the Agricultural Program of Costa Rica

The most significant change in the Agricultural program of Costa Rica is closely related to the passing of the Law of Economic Development (Ley de Fomento Económico) in 1959 and related legislation and reformation of the law in 1960. Basically, the law proposes to establish the responsibility for agricultural credit, colonization and land development in the National Bank of Costa Rica (Banco Nacional). The Bank, upon receipt of funds to be used for this purpose, anticipates initiating a program of supervised credit and colonization. The reasons given for this action are based on the concentration of population on the central plateau, uneconomically small sized land holdings of many farmers, a large number of farmers without land titles and the inability of the non-land owners to obtain credit.

In the initial phase of the program the bank is hopeful of obtaining a DLF loan for $10 M to be used for the rehabilitation of 1,500 farmers. Another loan request has been made with the Interamerican Bank for $1,150,000 to purchase cattle, some of which would be placed with these same farmers.

The USOM gave favorable consideration to this development and contracted an International Development Service (IDS) team to survey the situation. As a result of this survey and a request from the National Bank for additional services a project agreement and PIO/T for a contract have been signed by USOM with the Bank to provide technical assistance to the bank for the initial phase of the undertaking. It is anticipated that beginning early in 1961 IDS will provide four specialists to the bank for a minimum period of two years with the anticipation that three or four additional years will be needed to complete the work. The four technicians are to consist of two credit specialists, a community development specialist and a colonization administration specialist. In addition to providing assistance in program implementation these four men are to assist in developing organizational structure and in training a number of people in order that this entity will become a permanent division of the National Bank.

An important trend, not a change per se, in the agriculture program is the shifting of emphasis of the Servicio from what was at one time primarily of an extension service nature to that of applied research and the gathering of information. Of significance here is the development of "Los Diamantes", the old USDA rubber station, representative of a large area of undeveloped land on the Atlantic, into an agricultural research institution. It is believed that work to be conducted here will not only lead to improved cacao production but also encourage increased beef cattle production as well as that of other crops and livestock.

The College of Agriculture of the University of Costa Rica is assuming increased responsibility in the field of agriculture research. With some financial assistance from the Servicio it has agreed to conduct the soils work necessary for improved cacao and coffee production as well as some other related studies formerly

conducted by the Servicio. The College is also cooperating with the Ministry of Agriculture in carrying out continuous experiments with corn, rice and beans. During this period when it is impossible to establish clear lines of responsibility between the Ministry and the University, the Servicio is providing the stabilizing influence necessary to lend continuity to the programs. With this much progress made to date we are hopeful, with the election coming up next year, that it will be possible to establish clear lines of responsibility and organization in the government to provide for a continuous research program in agriculture.

The National Production Council (Commodity Credit Corporation) has assumed responsibility for encouraging improved seed production in the country. It is providing pure seed to selected farmers, field inspection, seed processing, certification and storage for rice, corn and beans at this time. With assistance provided from Mississippi State College a modern seed plant is planned which should be in operation by the next harvest season. It is hoped that sorghum and forage grasses will be added to the list of certified seeds available in one or two more years. A method for processing high quality jaragua, guinea and calingero grass has been worked out by the Servicio this year which will make the trade of these seeds feasible through commercial channels in the future.

Other actions taken by the government during the year affecting agriculture are:

1. Providing for a separate Ministry of Agriculture and Livestock. Industry has previously been included as the Ministry of Agriculture and Industry.

2. Passing of legislation encouraging the formation of farmers committees and the formation of a National 4-H Club Foundation.

3. Action to provide for more effective credit to livestock producers.

4. The proposal of a plant quarantine law.

The work of the Servicio has been instrumental in the development of youth work through 4-H Clubs which is continuing. The Servicio was also responsible for initiating work in the improvement of forage production which has contributed greatly to increased beef and milk production resulting in an increased demand for credit in this field. This work is also continuing. Earlier work pointing out the need for improved methods of insect and disease control is to a degree responsible for the recognition of the problem of plant quarantine.

Costa Rica like many of her neighbors continues to be plagued by unfavorable trade balances and deficit spending largely resulting from social reforms in labor, education, transportation and health. The only cure for these ills is increased agricultural production with a two-fold purpose. First, internal demands for food must be supplied, and second, exports must be increased to the extent that a favorable trade balance will result. It seems realistic to assume that a large share of the additional resources needed to expand agricultural development must come from external sources at least for the immediate future, for the simple reason that there is not sufficient funds to go around and the most pressing needs, as the man on the street sees it, is better schools, health facilities and roads. The program

of the National Bank should help to resolve internal food supply as well as increase exports. The cacao development program operated by the Servicio is aimed at increasing the production of this crop largely for export purposes together with its resulting social benefits. There is hope that beef production can be increased, through the benefits of research, extension and credit to the extent that exports can be doubled in a five year period, reaching $10 M. The development of the experiment station on the Atlantic (Los Diamantes) is expected to assist greatly by demonstrating the feasibility of beef cattle production in the Atlantic zone, a vast area that has been of little importance to the country in the past. The benefits derived from work done in this area will have region wide application.

ECUADOR

The new government of Ecuador took over on Sept. 1, 1960. There has been a rather complete change of high level personnel within the Ministry of Fomento. The Director of Extension still remains in his position. However, approximately 10 employees of the extension program have been replaced by the Ministry. Joint funds were utilized for the extension program for 1960. The operation, however, is completely under the direction of the Ministry except for adequate controls on the use of joint funds, with U.S. technicians serving as advisors to the National Extension Service.

The Ministry has not interfered with the regular Servicio programs as far as personnel is concerned.

In October the Ministry was given a written and oral briefing on all program activities with suggestions for program improvements and it was encouraged to accept full responsibility for direction, general budget and accounting of the entire extension program and accounting responsibility for the two vocational agriculture schools under the Ministry's direction since January 1, 1960. Following this meeting a trip was arranged for the Minister of Fomento to visit cooperative activities near Quito. He expressed a desire to see all projects in detail and was so encouraged. No further visits have been made, however, due to the Minister's absence from the country.

In a meeting on November 24, 1960 with the Minister of Fomento, Director of Agriculture and other key people there was an open expression of complete dissatisfaction with Servicio operations. It was clearly evident that this criticism was based on other than facts and that the motivations were not in the least objective. The Minister stated that a new basic agreement was needed but did not elaborate on his reasons. The Mission Director was informed of the meeting and he has requested many appointments with the Minister to try to clarify the situation. The Minister has left Ecuador on a three-week tour and as yet the general situation for 1961 programming remains undertermined.

The present level of funding of a joint program for 1961 will likely require some reductions. The contribution for the Servicio appropriated by GOE consists of 3,000,000 sucres or about 180,000 dollars. The U.S. joint fund contribution is $175,000 dollars making a total of $360,000 dollars for the entire joint program. It is also possible that 1,800,000 sucres or $108,000 dollars of the 3,000,000 sucres GOE contribution will have to be withheld to operate the country-wide extension program, thus further reducing the joint fund.

Several approaches are being considered to the formation of a new type of program. One is that of completely eliminating a jointly-financed program, utilizing the U.S. funds for carrying out major backstopping projects to the country extension program and to assign limited funds to specific activities in which the U.S. technicians are directly advising the GOE extension program. In connection with such a change it is likely that Mission would encourage such extension support projects as Agriculture Information., Plant Protection and Sierra Horticulture technicians be transferred directly to the GOE, USOM furnishing only technical assistance.

The 1960 program has progressed well. The phase-over of the extension program has been largely successful. The five U.S. advisors have been able to aid

the program in an efficient manner. Office space has not been provided by the Ministry as agreed for all the local extension personnel and U.S. technicians in extension. This has been a handicap to day-to-day operations. The director of extension has cooperated fully in utilizing the various backstopping programs in the Servicio. The program is weak in programming, evaluation, and training, and efforts are being made to remedy this situation.

Since reductions in training funds have been necessary, in-service training of extension agents, home demonstration agents and voluntary 4F leaders has been stepped up.

A training center is being developed at Conocoto, a 30-minute drive from Quito. Three practical in-service training meetings were held at Conocoto for subagents, home demonstration agents and voluntary 4F leaders from the extension agencies located in the Sierra region. It is anticipated that the center at Conocoto will fill a long felt need.

The Pichilingue Experiment Station was placed under the direction of a capable Ecuadorean technician early in 1960 with two U.S. technicians as resident advisors. This change over has worked out exceptionally well and is the first step in the complete turnover of this Station which has been U.S. operated since its founding. The Station has made outstanding progress in producing hybrid cacao; and planting material is being widely distributed in cooperation with the extension program and the coastal Horticulture project. The Station is recognized by Ecuador and other cacao growing countries as a leader in cacao development and as a training ground for technicians. A new freeze-dry method of storing and transporting pollen of cacao has shown excellent promise as a means of rapidly increasing hybrid seed both within and outside the country. The Pichilingue Station has been the base for the development of improved synthetic corn varieties. In addition, the introduction of other field crops and pasture crops has been intensified at the Station.

During 1960 a new program "Field Crops and Pasture Improvement" was established with headquarters in Guayaquil. New and improved field crops and grasses have been introduced on farms through cooperative demonstrations with farmers and the aid of the extension service. Most of the improved crops and grasses originate at the Pichilingue Station where seed increase is being expanded to support the extension program and backstopping projects. Farmers have been very responsive to field days. Seed demands of improved and new crops are high as farmers observe the results of the 40 well placed demonstrations with appropriate signs. The teaching of technicians and extension workers through the demonstrations has also been of major value.

The "Field Crops and Pasture Improvement Project" has been coordinated with activities of the Servicio "Livestock Improvement Program" and the "Farm Mechanization Program" of the coastal area for the betterment of the entire program.

The demand for heavy equipment has increased notably during the 1960 work season. Seventeen track type tractors have been kept busy with one time operations such as clearing farm land, building farm roads, farm ponds and related work. The Servicio has utilized $80,000 dollars in joint funds to bring in excess property from the U.S. for this work. The use of such equipment by the Farm Mechanization Program and the selling of older tractors and equipment has allowed the program to operate on its own income. In addition, the project has trained 48 tractor drivers through intensive 8 weeks courses. Nearly all the trained group have found ready employment.

The Poultry Incubation Project in Guayaquil has completed a full years

operation. The 10,000 egg incubator has been used continuously in producing baby chicks that are distributed to all parts of the country. The first commercial type incubator has provided valuable information of interest private enterprise. One hatchery has been installed in Quito. However, with poor success because of altitude. The owner is considering moving the installation to the coastal area. Eggs are now imported for the hatchery but breeder flocks are being developed for the program and should begin producing in 2 to 3 months.

The steer fattening demonstration project has been very successful. Pangola grass alone has produced and average gain of 1.7 pounds per day per animal. Because of this and other demonstrations, livestockmen are showing increased interest in pasture and breed improvement.

Cooperative programs between the Livestock and Agronomy Departments in forage production have improved milk production of many farms. Silos with a total capacity of more than 2,000 tons have been constructed this year. With ample silage milk production dropped only 10% during the dry season. Previous years without silage, the production dropped 30% to 40%. Many farmers are planning silos for the coming year.

The Production Control Program (DHIA) has suffered slightly during the year because of a lower price of milk. Every effort is being made to transfer this 8 year old program to a host government institution.

An important new program recently initiated is in clean milk production. This is in cooperation with the new Municipal Milk Plant and with more than 200 producers in the Quito milkshed.

During 1960 the U.S. technician staff has been reduced from 26 to 18 because of curtailed operational funds from both the U.S. and GOE. The morale of many technicians both U.S. and local, is at present rather low because limited budgets for their projects are restricting their field operations. It is expected that some proposed loan program, if approved, will provide a better utilization of many technicians.

EL SALVADOR

On October 26, 1960, the Government of President José María Lemus was ousted in a bloodless revolution. Following more than two months of political tenseness and upheaval Executive power was assumed by a civilian-military "Junta" composed of three civilians and three army officers. The President and his cabinet, the members of the Legislative Assembly, the Justices of the Major Courts and other high officials were removed from office. New ministers and subsecretaries were appointed as a first order of business by the Junta.

Diplomatic relations between the United States and the "Interim" Government of El Salvador were established on December 3. During the period October 26 to December 3, we had no contact with the new Ministry officials. The work carried on under the Servicio Agreement and various project agreements continued with only slight inconvenience and loss of efficiency. The Salvadorean Executive Co-Director was replaced with a young American trained Servicio technician who has carried on day to day operations commendably. American agricultural advisors were able to carry on their work with surprisingly little interruption.

The new Ministry however during the period before recognition was wrestling with problems of personnel, organization and budgets. The Fiscal Year begins on January 1 in El Salvador. It is suspected that the agricultural program and activities may be pretty well frozen through budget determinations. It is also suspected that budget, program and project determinations were made without great regard for or knowledge of cooperative programs planned for 1961 and 1962, or for possible activities that might be developed in accord with the Act of Bogota.

The Director of USOM/El Salvador and the Food and Agriculture Officer called upon the new Minister, Mr. Carlos Avilés, and the Sub-secretary, Dr. Ricardo Molina Aguilar, on December 13. The Minister and Subsecretary give the impression of being able, dedicated men of moderate views, but lacking in knowledge of government procedures and quite uninformed with regard to the agricultural program and its plans and objectives.

At the initial meeting the Minister expressed his regard for the cooperative program in technical assistance and his desire for its continuation and expansion. It was also agreed at that time that the Servicio Agreement should be allowed to lapse on December 31, 1960. The Agreement for closing out the Servicio was left with him for study. It was signed by the Minister and the Director of USOM on December 20. The Minister expressed interest in the possibility of a new Servicio Agreement to be drawn up and signed at a later date.

Since that time we have had a number of contacts with the new Ministry officials directed to the establishment of formal lines contact and plans of operation and to familiarizing them with the present cooperative program and future plans as mutually agreed upon with the former Ministry officials.

The most important meeting was held with the Minister, the Subsecretary and the Department Heads on December 21. That meeting was attended by the USOM Director and the Agricultural Officer. The Minister was presented with a position paper listing American technicians presently assigned to the Ministry, and positions for which assignments have been requested as mutually agreed upon. Short job descriptions and program responsibilities for each technician were also included.

Project agreement draft proposals covering present and future agreed upon activities were submitted for study and discussion. New project agreements must be signed to cover the work formerly carried on under the Servicio Agreement and to cover expiring project agreements.

A paper was also submitted pertaining to participant training for 1961. The Minister stated that he wanted more training.

The Minister expressed his appreciation for the information submitted and appointed commissions to study the various plans and proposals and asked for further discussion the first week in January.

It is felt that satisfactory relationships have been established and that lines of communications have been opened up. However, program implementation has been unavoidably delayed. No doubt there will emerge plans for significant changes in program objectives and activities. At this time we have little information to forecast what those changes may be. The Minister was presented with a copy of the "Act of Bogota". He expressed great interest in the possibilities for social and economic development in El Salvador under the provisions of the Act. It appears that definite plans have not yet been formulated.

Significant Changes and Accomplishments

1. An agreement was signed on December 20 to allow the Servicio Agreement to lapse. It provided for an orderly close out of Servicio operations, a transfer of equipment, materials and supplies, and the division of remaining cash assets. Administrative details for terminating Servicio operations have gone forward very smoothly. An orderly transfer of the activities and administrative responsibilities will be accomplished on January 1st as planned.

2. Draft project agreement proposals have been drawn up and submitted to the Ministry to formalize and to carry forward technical cooperation programs and projects. It is anticipated that these agreements will be signed by the Minister and the USCH Director early in January 1961.

3. A great deal of work was done during the past year in making studies of the agricultural credit situation in El Salvador. A commission appointed by the Ministry and made up of Ministry officials and American technicians, made a comprehensive survey of the situation and made recommendations for the development of a supervised production credit program. The work was culminated with a report and recommendations made by Mr. Miguel A. Pons, Vice-President of the Agricultural Credit Banks of Baltimore for Puerto Rico. The reports and recommendations were submitted to the former Minister and have been called to the attention of the present Minister. The present Minister has expressed interest in the program. However, its development may be delayed by the change in administration.

4. Studies, investigations and planning in the fields of agricultural cooperatives and marketing have been going forward. The former Minister had asked for American technical advisors to advise in the development of those programs and to assist in training Salvadorean personnel. The present Salvadorean administration has expressed interest in program development along those lines. However, those activities may be delayed as no definite plans have yet been made.

5. Effects of the Hybrid Corn Program and of the work in fertility and

insect and disease control may now be more fully appreciated. While no complete corn production figures are yet available, it is estimated that El Salvador produced sufficient corn to meet its own needs in 1960. Heretofore it has been necessary for El Salvador to import approximately one fourth of its needs amounting to about 1,000,000 cwt per year. It is estimated that the acreage planted to hybrid corn has increased from 10 to 30% of the total corn acreage in El Salvador.

6. The presence of the corn stunt disease in El Salvador has now been verified. This disease appears to be a potentially serious threat against corn production in El Salvador and perhaps to Latin America. Research work is now going forward in cooperation with local government officials and the Rockefeller Foundation in determining means of control and in identifying resistant corn varieties adapted to the area.

7. Hoja Blanca appeared as a serious threat to rice in El Salvador in 1957. Research work in cooperation with the U.S. Department of Agriculture is being successfully carried forward. Many varieties of rice have been identified that appear to be resistant to the disease.

8. Evaluation of the Extension Service of El Salvador was carried out in cooperation with the Department of Economics and Social Sciences of the Inter-American Institute of Agricultural Sciences of Turrialba, Costa Rica. The results are contained in a document entitled "Preliminary Report on Study of Extension Service of El Salvador" by Dr. Joseph Di Franco, Extensionist, and Dr. Antonio Arce, Sociologist, of the IAIAS in Turrialba. The study is considered to be very useful and other Latin American countries may wish to conduct a similar evaluation. Copies of the report are available in both English and Spanish at the IAIAS.

9. Outstanding accomplishment has been achieved in women's extension work in the field of home improvement. The American Advisor has found rural women eager and able to improve modest and even substandard living conditions under proper guidance. Homes are being made clean and bright and sanitary conditions greatly improved with small expense beyond labor. The rural youth (4-C) clubs continue to expand in number and activities with the active participation of the National 4-C Club Council.

10. An outstanding example in the field of participant training during the year was the four-month course in Extension methods, production credit and agricultural cooperatives conducted in Puerto Rico for twenty graduates of the National School of Agriculture. The school is of vocational agricultural high school level. The trainees have now returned and are employed by the Extension Service and other departments of the Ministry and are available to assist with extension, credit, cooperatives and marketing programs.

Conclusions

The Technical Cooperation Program in Agriculture has been measurably successful during the past year in spite of political unrest and upheaval. The situation is at present in a state of flux. What action the new administration will take in the fields of social and economic development and particularly in agrarian reform is uncertain. The present Ministry of Agriculture officials are too new in office to have developed plans for definite action. However, the situation looks hopeful for good relationships and continued progress in technical cooperation.

G U A T E M A L A

IMPORTANT CHANGES IN THE AGRICULTURAL PROGRAM OF GUATEMALA

There has been a great change in the Agricultural program of Guatemala during the past year. This has been the natural result of the growing maturity of the country and the government, and of progress made in the development of the program over the past several years. All represent steps forward.

A. STRENGTHENING OF MINISTRY OF AGRICULTURE

The agricultural program of Guatemala has developed under a number of semi-autonomous government agencies in addition to the Ministry of Agriculture. Until recently there was no overall agricultural program, but several independent and largely uncorrellated programs. This situation worsened under the previous Minister who liquidated many lines of work, including the Cooperative Servicio. As a result of his activity, several dependencies were set up as independent agencies responsible to the President.

The present Minister is sincere, cooperative, cognizant of the need for planning and effective organization and is politically strong.[1/] Under his guidance, a comprehensive four-year plan of work with a $29 million budget request has been developed. The plan would strengthen all activities of the Ministry, emphasizing rural development, irrigation and hydroelectric projects, basic crop and livestock development, and marketing. It is to be financed mainly by normal Government income supplemented by external grants and loans, and by part of a $40 million bond issue already approved.

Among the activities which have been brought under the control of the Ministry during the past year are:

1. National Agricultural Institute - IAN - (Research and Extension)
2. General Direction for Agrarian Affairs (Rural Development)
3. Petén Development Board.
4. Agricultural Mechanization.
5. Agricultural Credit Service.

The welding together of such previously independent agencies into a coordinated unit is a difficult and time-consuming process, requiring a firm hand. The Minister has requested the help and advice of the USOM and has taken steps to assure that the USOM advisors are used as effectively as possible at all levels. The Chief of the Food and Agriculture Division has been given a part in the formulation of broad policies and programs.

Many problems remain. Important among these is the lack of a broad USOM project under which we can give the kind of service that is needed. Restrictions on establishing new projects or amending existing projects has tied our hands. Reduction in TC funds at a time when the need for better organization and operation

1/ Since this was written there has been a change in Ministers.

of Guatemala's agricultural program is being clearly recognized is difficult to explain.

Another problem is concerned with providing service to the small but powerful group of educated, progressive large farmers who have the desire, the ability and the resources to improve production. It is the present policy of GOG to work for the small and middle size farmers almost exclusively. Few large farmers have confidence in the local technicians, and many are turning to the USOM for help. In our role as advisors to the Government, we are not free to satisfy these requests to the extent that is needed. The only apparent solution is more help to the Government agencies and more training of local technicians so that they will be competent to provide effective advice.

B. SHIFT OF EMPHASIS FROM PRODUCTION TO MARKETING AND STORAGE PROBLEMS

Over the past several years, national production of many of Guatemala's crops has been increasing to such an extent that meeting the country's needs is no longer an urgent problem. During 1960, production of corn, rice, potatoes and other crops rose to such levels that problems of storage and marketing were recognized as the critical needs of the agricultural program. This is not to say that efforts are not being made to further increase production, since it is recognized that per acre production of most commodities is still much below the potential. However, while such progress has reduced the pressure in this field - weaknesses in other fields, the disastrous price fluctuations, flooded markets, and loss thru spoilage due to inadequate storage and marketing facilities - have become apparent.

Improved transportation has also played a part in this shift in needs. The rapidly expanding highway system and the development of secondary access roads have opened up new areas of production, facilitated movement of products and at the same time created marketing problems. Two new steamship services to Miami and New Orleans have provided incentives for production for export to the U.S. market. Winter vegetables, tropical fruits, specialty crops, and livestock products are all affected.

Recent changes in production and marketing together with the resulting program reorientation for some important crops are discussed in detail below:

I. BASIC FOOD CROPS

1. Changes in production and marketing: Production increased substantially during 1960. Estimated corn production is up 70% over a year ago. Storage facilities for corn and rice proved to be grossly inadequate and the price support program was ineffective. As a result, prices of corn are 50 percent below the previous five-year average. Rice had to be exported for lack of storage facilities whereas Guatemala was an importing country in previous years.

   The expansion of corn and rice production in the more efficient coastal districts and the improved highway net-work resulted in lower prices, well below production costs, in the upland districts which farmers in the upland areas are thus practically forced to turn to other crops for a cash income.

   Soft wheat acreage and production are increasing at a steady rate under the stimulus of development operations by the Ministry and a firm price

support of $6.00 per 100 lbs. Wheat production is still only at about one third of consumption and hard wheat imports have increased to keep pace with local production of soft wheat. Bean production increased to about the level of consumption.

2. Program reorientation: Reduced corn production costs make it possible to greatly increase animal feeding but prices as well as production of corn must first be stabilized to a degree that livestock producers can make advance calculations of costs with some degree of assurance. Present grain storage facilities can only handle about three percent of the crop and the support program is administered by a non-agricultural agency of the government. The Ministry proposes to bring this program under its jurisdiction and integrate its operations with those of development, the Credit Servicio and Institute Agropecuario Nacional. Support operations are being planned to come as close as possible to self financing. Support policy will be flexible and may depend to a considerable extent on loans for stored lots. Purchases will be made for export as needed to prevent building up an unmanageable surplus. Storage capacity will also be enlarged in the major producing areas. Program management will be entrusted to a Board composed of representatives of the Ministries of Agriculture and Economy and the financial agencies.

3. Accomplishments and economic effects: ICA technicians initiated most of the research on improved corn varieties, insect and weed control and fertilization and the results were effectively demonstrated by the Extension Service. It is too early to evaluate fully the economic effects of the production changes but they will obviously be fundamental.

II. COFFEE

1. Changes: Larger per acre yields and reduced costs have been obtained by improved varieties, reduced shade and fertilization. Minor element deficiencies are being corrected by foliar application. Results from magnesium applications have been outstanding. Work is also in progress to improve hulling, washing and drying methods.

2. Program reorientation: The coffee technician will devote part of his time to development of spices and other alternate crops for coffee.

3. Accomplishments and economic effects: The new methods introduced by the ICA technicians were all designed to reduce production costs per pound and thus improve the competitive position of growers. Since coffee is the principal export crop, a small savings per pound adds up to a considerable increase in net profits to coffee producers.

III. KENAF

1. Changes: Plantings totalling six to seven hundred acres in 1960 would have produced nearly 2,000,000 pounds of dry ribbon except that extremely heavy rains at harvest time and insufficient harvesting machines prevented harvesting the entire crop. The dry, semi-decorticated ribbon is used for making sacks in the DLF supported PROKESA mill, which uses a modification of the Trias (Cuban) process. Some of the better fields produced 3,400 lbs. of dry ribbon per acre and none produced less than

500 lbs. per acre.

The variety C 2032 that is less sensitive to day length was field tested with excellent results. This will be extensively used next year as it not only lengthens the harvest season but gives a higher yield. A larger area will be planted next year to not only supply local needs but also to permit some exports.

2. Program reorientation: The problems of perfecting the harvesting machinery and making better use of it, as well as working out a quick semi- mechanized, retting process will be undertaken by industry. USOM will continue to assist IAN in variety improvement and related research, but it is expected that this work can be handled by the local agency without assistance during 1961. The principal obstacle is financing.

3. Accomplishments and economic effects: The ICA technician was responsible for the seed procurement and development of the new varieties, which in reality are the fruits of the former Cuban and Honduranian programs. By next year, this crop will replace fiber imports valued at about half a million dollars and add an unknown amount to export earnings.

IV. RUBBER

1. Changes: Only about 2,185 acres of Hevea rubber were planted last season bringing the total to 8,040 acres. Practically all of these plantings have been privately financed. The DLF Loan for five million was touched only once for a 552 acre planting, although it was designed to partially finance the planting of 80,000 acres. ICA technicians approved 16,270 acres as suitable for rubber planting under the loan, but loans were not forthcoming and loan applications were below expectations.

Aside from the eight percent interest charge that chilled some of the prospective planters, there were barriers from the Guatemalan banking laws and practices. The secondary banks were to receive two percent as their discount on the loan which is less than their charge on other loans that do not involve field inspection and separate accounts. Banking laws require first mortgages for long term loans and most farms are already mortgaged. Laws also restricted the term of mortgages. The current congress has amended these provisions insofar as they affect rubber and has also made significant tax exemptions. The DLF has been requested to reduce interest rates.

2. Program reorientation: A Credit Servicio is being established in the Ministry of Agriculture and it is anticipated that this organization can be used as the intermediary between the Central Bank and farmers. The Servicio will be able to operate quite comfortably on two percent for servicing the loans. Better integration between the loan agency and the IAN rubber technicians will also be possible which should speed action on loans.

The principal concern of planters at present is the fact that the price of natural rubber has dropped 10 cents in the past six months. As production cost of natural rubber in Guatemala is calculated at not more than 12 to 13 cents, there is still ample profit even at the lowest projected price of 25 cents per pound.

3. Accomplishments and economic effects: The rubber program is the outgrowth of many years of research by ICA and preceding U.S. aid organizations. If the development potential is fulfilled, rubber will rank close to coffee as an earner of foreign exchange and an employer of labor.

V. SUGAR

1. Changes: Allotment for the U.S. market is 10,000 tons - not enough to justify the two new mills which are under consideration. If the allotment is increased, sugar could become an important export but new varieties and research and extension on fertilization and pest control will be needed to bring yields up to a profitable level.

2. Program reorientation: No action is being taken.

VI. LIVESTOCK

1. Changes: The success of Pangola and other new grasses that have been proven, plus lower production costs for corn, have made cattle and hog production more profitable. Molasses pellets are another source of cheap feed. The Tiquisate Division of the United Fruit Co. is partially shifting from bananas to beef cattle. Guatemalan cattlemen have formed an association which has the export of beef as one of its primary purposes. Live slaughter cattle are being exported to other countries in the Caribbean area.

   Production of poultry and eggs has increased so markedly in the past few years that prices to the consumer have been reduced by almost 50% and poultry products now make up an important part of the local diet.

   Guatemala normally imports over a million dollars worth of concentrated milk products a year and about half that much of processed meat. Much of these commodities could be produced in the country.

2. Program reorientation: A livestock technician has been requested by GOG and it is hoped that the livestock program of IAN can be strengthened. However, financial limitations of both governments have prevented any action. It appears that private interests are capable of handling further needed developments in poultry.

3. Accomplishments and economic effects: The introduction and testing of grasses and development of supplemental feeds was part of the Cooperative Servicio program. SCIDA was also mainly responsible for the great increase in poultry production through its research, extension and training programs, and the importation and distribution of baby chicks. There is no available statistical data to measure the economic effects to date.

C. RECOGNITION OF THE NEED FOR CROP DIVERSIFICATION

Falling world coffee prices, improved internal and external transportation, and the achievement of self sufficiency in many consumptive crops has emphasized the need and the opportunity for crop diversification. The rubber development program, previously discussed, was the first step in this direction. The IAN at the

urging of USOM, has now embarked on a definite and agressive crop diversification program, and has established this work in a new division on an equal footing with research and extension. Present finances limit the scope of the work, but a Special Assistance project has been proposed and it is hoped that GOG can also provide increased financial backing.

The program is being initiated with cocoa, fruits and vegetables, and spices and flavorings.

I. COCOA

1. Situation: Guatemala has about 4,000 acres of producing cocoa, mostly on the Pacific slope where land values are high. The thinly populated and generally unproductive Atlantic Zone has roughly 100,000 acres with suitable soils and climate. In 1959, the Bank of Guatemala requested USOM to make an economic survey of cocoa production in the Caribbean region and the possibilities for development of the Atlantic Zone of Guatemala. Following the report, they requested help in making a soil-climatic survey of potential areas, which has been completed and evaluated by Turrialba.

   The results indicate that there are 20-25 thousand acres in the Department of Izabal which are accessible and can be immediately developed and another 75 to 80 thousand in the Department of Alta Verapáz which can be developed in connection with the $12,000,000 Sebol Rural Development project.

   The Bank of Guatemala is making a land ownership and cost of land preparation study. The next step will be to find funds for development financing of suitable areas.

2. Program reorientation: The agricultural economist will assist the bank in the cost estimates and loan applications. As soon as the plans have been completed and approved, the Joint Fund project will step up its plant multiplication and extension program. Some new plant material has already been ordered for plant breeding purposes but this will have little effect on the initial plantings.

3. Accomplishments and economic effects: None to date. By developing unused land, cocoa could become an export crop of third rank in less than a decade.

II. FRUIT AND VEGETABLES

1. Situation: The Extension Service has introduced new potatoe and onion varieties and fertilization and spraying methods to such good effect that the antiquated marketing system was unable to distribute the greatly increased production during the peak of the 1960 harvest. Exports of both products increases substantially during the main season and imports were reduced during the off season.

   The new steamship services to Miami that were started in November have cleared the way for the development of a winter vegetable export industry. Some 600 acres of tomatoes and 200 acres of melons have been planted for export to the U.S. during this winter season. Steamship lines

will carry trailer trucks and, after clearance in Miami, these will be diverted to midwest and east coast markets. Current plantings are by large landholders who are blessed with risk capital but farmers with small holdings in the same areas are watching the outcome. If this year is successful, it is probable that small farmers will produce next year under contract agreements where an entrepreneur provides the capital, technology and packing facilities and the producers receive a prorata share of the proceeds.

IAN is now initiating varietal adaptation trials in some ten climatic zones. These trials include tomatoes, cucumbers, bell peppers, all types of melons and garlic. The Extension Service is demonstrating varieties and cultural methods for lettuce, tomatoes, onions, melons and similar crops for local and neighbor-country consumption. Fruits for export in frozen form are also under study particularly berries, guavas, guanabanas and passionfruit.

2. Program reorientation: The marketing system is in need of a thorough overhaul to reduce distribution costs and bring produce within the budgets of a much wider segment of the population. This need is fully realized by agricultural leaders, in fact a combination terminal - farmer wholesale market was planned and the site selected this fall when a jurisdictional dispute interrupted progress. We expect this to be settled in the course of the year. Among the new market facilities there will be sufficient cold storage for temporary excesses of potatoes, onions, oranges and similar products. It is expected that a simple form of market news reporting can be established in the Ministry as well as a service for establishing standards and making inspections to serve both the local and export trade. The Extension Service is planning to train some of the personnel in packing and grading for export, the training to consist of working in packing houses on the Mexican West Coast.

3. Accomplishments and economic effects: Extension Service advisors deserve much of the credit for introducing new crops to small landholders and the introduction of new varieties of tomatoes, onions and melons was a result of trials at the La Fragua irrigation project. The plan for reorganization of the marketing system was developed by the agricultural economist. The Extension Advisor and Agricultural Economist have also been active in assisting export planters in problems of production and marketing. If the latter industry develops as well as expected, it should bring in some 3 million dollars a year by 1963 besides providing many new jobs and aiding other industries, particularly sawmilling.

III. SPICES AND FLAVORINGS

1. Situation: Guatemala appears to have climatic and soil conditions suitable for the production of vanilla, black pepper, cardamine, and other specialty crops in demand in the world market. U.S. importers are highly interested in developing a source of supply in this hemisphere. A few farmers have made some trial plantings of many spices and vanilla is produced for local use. Since information as to adaptability and cultural and harvesting procedures is largely lacking, and because of the long time required for most of these crops to come into bearing, this field

does not have the urgency of the fruit and vegetable development work.

2. Program Reorientation: IAN is including work on these crops in their Crop Diversification Division and planting stocks are being obtained. The Tropical Horticulture Advisor (Coffee) is being assigned 1/2 time to this work.

3. Accomplishments and Economic Effects: This project is in the formative stage. No forecast as to possible economic effect is now warranted.

H A I T I

I. Important changes in the Agricultural Program of Haiti

Recently the President asked for and received power to govern by decree. In one of the decrees related to agriculture it is necessary that the exporters themselves invest in bettering the production of export crops. This can be done in various ways:

1. Loaning capital to groups to organize producers' cooperatives for better processing.

2. Direct investment in the land in the formation of plantations such as coffee, sisal, cacao, etc.

3. Setting up and paying for the cost of model demonstration farms using the best known farming methods and practices.

The first known result of this action has been for the coffee exporters to organize themselves and subscribe a capital of $300,000 to invest in demonstration farms. This group has come to us for help in technical assistance.

Recently in a cabinet shakeup it has been noted that the emphasis being given by the Minister of Agriculture is toward production, more help to private enterprise, and steps toward helping the individual peasant to raise his standard of living. This is a reversal of the policies before which were directed more and more toward statism and government ownership. This change in policy will permit our credit program to expand in the direction we believe it should take by being able to channel more loans to cooperative groups to help them with their marketing, storage and processing of agricultural products.

II. USOM Agricultural Program

The agricultural program being carried out in Haiti is directed toward increased production of food and export crops, storage, marketing and processing, livestock feeding and disease control, producers' cooperatives, agricultural industrialization, conservation of natural resources, and rural credit.

In the Department of the North (Poté Colé Area Development Project) this year we have provided through credit three capital loans to producers' cooperatives, for washing and drying of coffee, a tomato canning plant, and a combination cacao and coffee washing plant. These three plants benefit directly about 750 individual cooperators.

The tomato canning plant is scheduled to begin production of tomato paste, juice and catsup January 15 with a production this first season of 260,000 cans.

Studies are now being made for loans to three more cacao and coffee cooperatives, two grain storage and marketing cooperatives, two small peanut oil processing plants,

to benefit directly about 4000 small farmers.

In the Artibonite Valley emphasis is being given to storage, drying and rice milling by increasing the storage and drying capacity of the plant, a grain storage and feed mill is being installed, hybrid corn seed is being produced to satisfy the needs of Haiti, tomatoes are being produced to fill the needs of a canning plant, cucumbers are being produced under contract with a pickle company in New Jersey, livestock such as hogs, chickens and rabbits are being distributed in larger quantities as the feed from local products increase in volume. This program will benefit thousands of small farmers in the Artibonite Valley and diversify the one crop system of rice.

The tomato canning plant identical to the one in Cap-Haitien is scheduled to go into operation about April 1, 1961 with an output also of 260,000 cans this first season.

The harvest of corn and grain sorghums in Haiti during 1960 was more than ample due to good rainfall distribution and the wider use of better seed distributed through our corn program. This has depressed the price of corn to where the small producers in some areas were receiving about 1/2¢ a pound when they could find a market at harvest time. The storage facilities are being rushed in order to prevent this again in 1961.

The livestock program is getting well underway with the distribution to 4C members, farmers, and rural schools of 245 weiner pigs. Three base herds of Duroc Jersey and Poland China hogs are located at Damien (National Agricultural College and Ministry of Agriculture), Poté Colé project (Grand Pré Demonstration Center), and at Borel in the Artibonite Valley. The feed mill will soon go into operation at Saint Marc. This will reduce the hog and chicken feed from $7.50 a hundred, by using locally grown ingredients, down to $4.00 to $4.25. A good market for pork is assured for a limited amount and exports will be made to other countries in the Caribbean area. The new Haitian American Meat and Provision Company (HAMPCO), a modern half million dollar slaughterhouse is in operation and will take the entire good grade pork that can be produced. The company is now arranging with the Haitian government for a permit to export meat and meat products.

A concentrated effort will be made during the fall and winter of 1961-62 to grow vegetables on a minimum of 600 to 1000 acres, which is necessary in order to secure adequate shipping to come into the new port of Gonaives built by a copper company.

An intensified program is being carried out by the National Extension Service through radio programs, pamphlets, and demonstrations on the plating, cultivating, harvesting, and storage of corn and grain sorghums. A communications media center has been established in the Ministry of Agriculture located at Damien, and is a cooperative effort of Agriculture and the Education Divisions.

Construction of the new College buildings at Damien to increase the enrollment from 35 to a minimum of 100 students, will start about March 1, 1961 in order to receive additional students by November 1, 1961. We are now looking for a U.S. University

which would be interested in a College contract to help with the expanded enrollment and curriculum.

Greater emphasis is being given to the Watershed Protection Project. Relatively large pasture areas are being seeded, fenced and stock water dams built to carry out a range management program. Training is being intensified in the Conservation field as the lack of trained Haitian technicians has been the block to further expansion. A new large tree nursery is now being seeded, the sprinkler irrigation system installed with a drilled well to furnish water. This nursery in three to four years will have a capacity to produce six million seedlings a year.

Fencing is being provided to interested land owners by rural credit. The farmers provide their own posts and we treat the posts by a new simplified method of dipping in a prepared solution. This treatment enables pine posts to last at least 25 years as compared to 2 years for untreated ones.

With the above practices being installed increased emphasis is also being given to the overall livestock program of cattle, hogs, and goats.

In February 1961 a nation wide animal disease control and reporting service will be started with five mobile units to control outbreaks and step up veterinary services. A mobile laboratory will also go into operation March 1 to train the operators in diagnosis of animal diseases. A study is being made of the possibilities of greatly expanding the poultry production, and set up an integrated broiler industry in the Artibonite Valley. This will be tied in with the feed mill, a killing, dressing, and refrigeration plant. The base flocks of hens for egg production, and hatchery will be ready in about 6 to 8 months. A marketing study is now being made to find outlets in the countries of the Caribbean and Central and South America.

The following projects constitute the Agriculture Program in Haiti for fiscal year 1961 in technical assistance and economic aid:

1.	Joint Fund	$ 397,000
2.	Watershed Protection	400,000
3.	Rural Credit	442,000
4.	Livestock & Veterinary Research	150,000
5.	Poté Colé	373,000
6.	Artibonite	1,000,000
7.	College Buildings	250,000
8.	Technical Assistance in Agriculture	513,000
	TOTAL:	**$ 3,525,000**

HONDURAS

AGRICULTURAL PROGRAM DEVELOPMENTS.

I. Introduction

In Honduras, the agricultural segment of the economy supports directly about 70% of the population, employs over 80% of the economically active labor force, produce 45% of the gross national product and provides 90% of Honduran export values. Any broad economic development program in Honduras must be based on its relationship to agriculture, while social and political development programs must give careful consideration to the rural, agricultural complex.

The established agricultural program in Honduras is carried out by three agencies. The Ministry of Natural Resources is responsible for the development of agricultural policy, control and management of natural resources and national lands, regulations effecting all phases of agriculture and natural resources, provision of agricultural services and stimulation of agricultural development. STICA, as a branch of the Ministry, is responsible for agricultural extension, some phases of agricultural development, and provision of some agricultural services. The Banco Nacional de Fomento (BNF), an autonomous agency, is charged with provision of agricultural credit, agro-industrial development and commodity stabilization.

At present, the agricultural program situation is extremely fluid, since this basic program is being subjected to conditions and influences whose character is not yet clearly defined, but which will certainly cause major shifts in the country program and in the USOM operation. These conditions and influences include the following problem areas:

A. Agrarian Reform: On August 5, 1960, the President of Honduras set forth a broad, complex and rather sophisticated program of agrarian reform designed to have major social, economic and political effects. As proposed, the program will seek increased utilization of national lands, unused private lands, and consolidation of private holdings of less than economic size in densely populated areas (in that order), backed up by very complete technical and material aid in agriculture, health, education and administration. A team of Organization of American States (OAS) experts is now studying the local situation preparatory to recommending on the legal, organizational, administrative and financial aspects of the proposed reform. GOH Congress is expected to provide a legal basis for the reform, including establishment of a National Agrarian Institute, during the current session which is scheduled to end in May. The success of this program will depend to a large extent upon the thoroughness of the preliminary planning and the degree to which existing resources may be brought to bear on the problem.

B. Economic Deterioration: Honduran agriculture has been beset successively by: (1) Deterioration of the market for Honduran bananas, leaving the fruit companies in an untenable economic situation and reducing GOH revenues and foreing exchange earnings; (2) an unsuccessful BNF-banked venture into cotton production which severely reduced the Bank's fund available for credit and left many progressive farmers saddled with debts which they are unable to liquidate (This is one of several similarly unsuccessful BNF-stimulated operations.); (3) sharply reduced corn prices which affect practically all of the smaller farmers, and in turn, the internal commerce of the country.

C. Territorial Expansion: On November 18,1960, the International Court of Justice handed down a decision which cleared Honduran title to a large area of almost unoccupied land bordering on the Nicaraguan frontier. Although this area is isolated from the rest of Honduras by lack of communications, Honduras is under the political obligation to occupy and utilize this area.

D. Other aspects: These major problem areas are further complicated by a series of conditions which prevent their ready solution:

1. GOH Budget Balances: Extensive social development commitments by GOH administration have resulted in a budget weighed towards health,education, social security, etc., at the expense of economic development programs, including agriculture.

2. Policy and Program: Although broad policies have been stated on some parts of the agricultural problem and many commitments have been made, detailed policy is generally lacking, while the basic agricultural programs are established more by tradition than by direction. In particular no suitable program has been advanced which would lead to a solution of the complex situation in which Honduras finds itself as a result of interactions of the major problems enumerated above.

3. Inadequate Technical Support: Honduras does not have sufficient number of adequately trained agricultural technicians and economists to deal effectively with traditional agricultural problems, without considering the immense additional requirements posed by the new problem areas. This is evidenced by the lack of integral planning and the paucity of necessary agricultural and economic investigations.

4. Inadequate Financial Resources: As indicated above, increasing social development commitments in the face of essentially constant income has forced a reduction in the already small agricultural budget at a time when the agricultural economy is being subjected to force which will require increased technical and material support. Agricultural credit resources are decidedly limited, especially for medium and long term credit. Without the stimulus and economic guidance of credit, improvement of the agricultural economy will be slow indeed.

The fairly sudden onset of the effects of the principal problems and the complexity of their interactions has prevented either GOH or USOM from finding a ready internal solution to a situation fraught with potential undesirable consequences. Until GOH is ready to accept the seriousness of this situation and take the steps necessary to lead the country out of its difficulties, USOM is unable to recommend a complementary program which will assist in this respect.

The principal palliative of this situation is the high percentage of Hondurans engaged in subsistence agriculture and the ability of this subsistence agriculture to absorb the unemployed from the economically active labor force. This leads to a further regression in economic development, however. Worse, it prevents rapid crystallization of the situation, so that corrective action is delayed while the economy continues to deteriorate to the point where major changes in the Country's social, political and economic structure will be required to alleviate the problem.

II. USOM Agricultural Program Developments.

Until fairly recently, the USOM/Honduras agricultural program was identical with the Servicio Tecnico Interamericano de Cooperación Agrícola (STICA), and, in terms of project-type assistance, it still is. This limited function is recognized as undesirable. Although STICA is providing essential services, its operations must fall within the context of the overall country agricultural and administrative policies and be subjected to their limitations. Although STICA has some direct influence on these policies, it can cover directly only a small segment of the over-all agricultural program. Therefore, the Food & Agriculture Division has attempted, where feasible, to shift responsibility for STICA operations towards national technicians, in order to undertake a larger advisory role to the Ministry of Natural Resources and the Banco Nacional de Fomento.

A. STICA Operations:

The STICA program consists essentially of an Agricultural Extension Service, a National Agriculture and Livestock Cente (for investigation, demostration, and production of improved varieties of plants and animals), a Corps of Specialists for backstopping both activities, and the necessary administrative support. The size and type of operation is fixed by budgetary limitation and inability of GOH to assume responsibility for maturing activities. Consequently, in preparation for a shift from exclusively servicio operations towards a larger advisory role, this division has undertaken the following program:

1.) Consolidation and improvement of continuing servicio operations, with emphasis on establishing norms of administration and operation which will permit less strict personal control by U.S. technicians.

2.) Greater reliance on local personnel in both technical and administrative positions where adequate competence is available or can be quickly developed.

3.) Reduction of total number of U.S. technicians in favor of fewer individuals of exceptional quality, who can serve as advisors on a national planning level as well as on an operational basis within the servicio.

4.) The transfer or termination of unsuitable activities and the application of funds thus released to new activities which will improve basic servicio operations, improve relationships with other GOH agencies, and/or increase servicio prestige.

5.) Wherever possible, utilization of the servicio's operations in support of the overall country agricultural program, thus extending F & A Division influence more towards the policy-making levels.

B. Non-Servicio Activities:

As a result of the policy stated above and the increasing pressure of the major problems enumerated in Section I, the F & A Division is tending towards greater

influence and assistance to GOH in the overall agricultural program. This is a slow process, and progress is limited by the fluidity of the situation at present and the lack of clearly-stated GOH policy towards alleviating that situation. Nevertheless, the following minor accomplishments are cited as indicative:

1. Ministry Policy and Livestock Programs. This division assisted the Minister of Natural Resources in preparing a statement of overall policy and priorities concerning activities in the fields of animal industry, natural resources, agrarian reform, and crop production; a more detailed policy and set of priorities in the field of animal industry; and a broad program of operations to improve Honduras' livestock economy. This was submitted in its entirety to the National Economic Council as a statement of Ministry intent for future programming. We hope to assist in the refinement of the animal industry program by the development of concrete plans, and in the development of more detailed policies, programs and priorities in the other three fields.

2. Assistance to Banco Nacional de Fomento: During the past six months, this Division has been called on with increasing frequency by BNF officials to assist in the preliminary investigation and planning of BNF programs and in the preparation of background material for BNF loan requests to international lending agencies. We are attempting to work out a closer relationship between the STICA extension agencies and the BNF field agencies which will be mutually beneficial. BNF is now actively seeking advisory assistance from international lending agencies to facilitate a reorganization of the Bank's functions, and this may lead to a supervised agricultural credit program and increased development of agricultural cooperatives. An IADB Mission is coming to Honduras in January, 1961, to make a preliminary survey.

3. Agrarian Reform: We have not actively engaged in this program to date since the OAS team has been given primary responsibility. We have cooperated wherever possible with that team and expect to be called on for assistance in implementation of the program. We are awaiting OAS recommendations and GOH Congressional action in order to determine the form that USOM assistance should take.

III. Forecast.

The magnitude and complexity of the economic, social and political factors affecting the Honduran agricultural program present problems beyond the present technical and financial capabilities of GOH and USOM/Honduras. The current instability of the agricultural economy and the lack of positive direction towards the correction of the significant problems will lead to continued deterioration until crisis conditions are reached or until realization of the situation results in positive action. Assuming the latter course and also assuming that GOH political commitments and financial limitations prevent them from solving their problems without external assistance, it is anticipated that USOM will be subjected to request for both technical and material assistance in the agricultural field in the near future, far beyond the present limited program. Because of lack of

information on the forms which these requests will take, it is not now possible for this USOM to present suitable projects for approval or to provide the necessary detailed justification. However, it is felt that prompt consideration must be given to these requests, whenever presented, if Honduras is to retain or improve its economic, social and political status.

PANAMA

Important recent changes in the agricultural program of Panama have occurred as a result of:

1. Change of government administration, October 1, 1960.

2. Intensified awareness of agriculture's role in Panama's economic development.

3. Pressure for establishment of a national research system and improved coordination of technical departments with the Extension Service.

4. Public statements by U.S. officials regarding increased aid to Latin America; and announcements of U.S. loans and special assistance to the Panama Government.

5. Proposal of the Panama Government for a U.S. loan for agricultural development and a loan of $2,500,000 per year for five years for agricultural credit and cooperatives to supplement an average of $700,000 per year now loaned to Panama farmers.

6. Increased interest of commodity organizations in agricultural development programs.

7. Accumulative impact of successful technical cooperation projects.

8. Increased press coverage of agricultural development activities.

All of these factors are contributing to program redirection and reorientation. USOM agricultural activities have had an effect on new program developments by demonstrations of successful projects in the agricultural Servicio and in cooperating Ministry agencies.

An outstanding example has been the establishment of standardized grading and packaging of certain fresh fruits and vegetables. For the first time Panama farmers are taking advantage of a firm market for quality produce and the pattern has been established for the Panama Canal Company and Caribbean Command to obtain a dependable supply from Panama. The significance of this accomplishment lies in the initiation of marketing procedures which can be utilized in domestic trade as well as export trade.

Prior to the appointment of the new Minister a series of conferences were held by the president-elect's three top advisors with the USOM Director, Food and Agriculture Officer and Director of the Servicio. The new Minister of Agriculture is holding a series of conferences with the Food and Agriculture Officer, Director of the Agriculture Servicio and Panamanian and U.S. technicians. These conferences are on established programs and on the reorientation of agricultural services to rural people.

IMPACT PROJECTS

Discussions with Panama agricultural officials and technicians regarding possibilities for impact programs, have stimulated considerable interest in the development of intensified projects. The Ministry of Agriculture and the USOM Agriculture Division have proposed five impact projects which could be effected through existing organizations and which would make permanent contributions to long-range programs.

Panama is scheduled to receive $1 million from special assistance funds; of this, $300,000 is scheduled for use on feeder roads, and the Ministry of Agriculture and the USOM Agriculture Division have requested $200,000 for the following impact projects: Marketing, $70,000; Corn impact, $10,000; Forestry conservation, $10,000; Irrigation, soil and water use and conservation, $50,000; and Seed storage, $60,000.

Subject to final agreement between GOP and U.S., the funds will be applied as follows:

For marketing, $30,000 will be used for purchase of machinery and equipment for three assembly centers in the interior and a terminal grading and packaging plant for fruits and vegetables; $20,000 as a contribution on the construction of these facilities; and $20,000 as a revolving fund for payments to farmers until agricultural credit funds become available to organized cooperatives.

For the corn impact program, $10,000 will be used to purchase improved seeds, and fertilizers, insecticides, sprayers, and miscellaneous demonstration supplies. Increased corn production is needed to replace corn now being imported and to fill the need for increased consumption.

The $10,000 for forestry conservation will be used for purchase of equipment, tools, miscellaneous supplies and tree seeds to establish nurseries for reforestation of farm lands and reforestation of a watershed area for a hydroelectric plant which will supply power for the central provinces.

The $50,000 for irrigation, soil and water conservation and use will provide equipment, materials and supplies for services not now available to farmers, as a means of increasing agricultural production through improved irrigation, land and water conservation and use.

The $60,000 for seed production, processing, drying, cleaning, grading, packaging, and storing facilities and equipment will be used to provide viable seeds, especially in principal farming areas. The combination of high humidity and temperature in Panama provides the worst possible conditions for seed storage. Therefore, this project is a priority need for farmers.

All of the impact projects are expected to increase the general interest and participation of farmers in established extension programs.

The Panama Planning Commission is requesting 89 million dollars from Bogotá funds for a 5-year program for social development. This includes 18-1/2 million

dollars for Agriculture, of which 6 million dollars is for agricultural development and 12-1/2 million dollars is for agricultural credit. The agricultural development program will include a cadastral survey, a study program on land and water development and use, and a resettlement program for 75 to 125 families per year for the 5-year period. The agricultural credit program is primarily for small production credit loans and for the development of agricultural cooperatives both production and marketing.

General Reorientation

An interest in the reorientation of agricultural research activities has been intensified by the submission to the Minister of several proposed reorganization plans.

The Director of the Agriculture Servicio and the Director of the National Institute of Agriculture have prepared a unified plan for agricultural research. The University of Panama is supporting legislation to transfer the National Institute of Agriculture from the Ministry to the University of Panama. The University is also interested in obtaining the Ministry research facilities at the Institute and the land now being used by the Institute for agricultural experiments. However, the Minister of Agriculture is interested in operating a national agricultural experiment station system within the Ministry organization.

Without attempting to define the merits of a system either under the direction of the Ministry or under the direction of the University, in either event there will be a redirection of agricultural research activities under University direction or intensified efforts to strengthen the system within the Ministry. USOM Agriculture Division technicians have been instrumental in developing coordination procedures among the departments now conducting agricultural research activities.

New program plans include specific assistance to the Extension Service by specialists of technical departments. The reorientation is toward a more integrated approach to solutions of specific problems and for extension activities designed to meet specific needs of farmers. The integration will be carried through from planning stages to execution of the programs in both extension and research activities. The active interest of the new administration in agricultural programs gives some assurance that integration will be effectively implemented.

In addition to existing activities in livestock work, greater emphasis will be placed on dairy production and marketing in an attempt to provide an adequate supply of dairy products to meet domestic demands. A milk shortage exists for both consumer and manufacturing market demands. Preliminary surveys have been completed on market demands and the production capacity of a limited number of farmers who produce milk for sale. The survey includes farmers milking as few as two or three cows up to commercial dairymen.

Farm management technicians are working with commercial farmers on improved cost accounting methods and record keeping as a basis for increased efficiency and higher production in commercial farming operations. Farmers are interested and are cooperating with the technicians in making cost and income records available. This activity is expected to affect the nation's total agricultural production.

Production and marketing data collected by farm management personnel will also serve a useful purpose in planning agricultural development programs.

The Agricultural Engineering Department which was phased into the Ministry on July 1, 1959, is receiving special attention by the new Minister. The budget for Engineering Department activities provides $42,000 for 1961; and this represents an increase of $22,000 over 1960. This amount, plus the funds expected for an impact project, will permit the department to expand its assistance to farmers of Panama. The greatest effect on the economy of Panama will be through increased production on lands which will be brought under irrigation and an increase in livestock and dairy products resulting from the construction of farm ponds and silos. The addition of two agricultural engineers and the assignment of a U.S. advisor give the department a total of five agricultural engineers to work on the expanded program.

Panamanian and U.S. technicians in the field of crops, livestock, engineering, marketing. horticulture, soils, plant pathology and entomology, agricultural economics, agricultural education, research and extension will all provide technical assistance for old and/or new projects.

The Agricultural Information Project will have a key role in the reorientation of agricultural programs. Information Project personnel are working with technical personnel in the preparation of materials to support the impact projects. In the reorientation program for coordination of agricultural research, the Information Project will serve as one of the coordinating elements in bringing together interrelated information from various technical departments; particularly in the preparation of research publications which can be used as a basis for extension type publications. In the reorientation of the program for improving assistance which technical departments provide the Extension Service, the Information Project is working with technical departments in the development of an annual information plan of work which encompasses the materials and information activities needed to support extension work.

PARAGUAY

The national program of the Ministry of Agriculture and Livestock consists largely of regulatory and control measures. It also includes, however, small scale actions designed to stimulate production of selected crops such as wheat, rice, peanuts, corn and cotton, by arranging production credits through the Bank of Paraguay (when they are available), to farmers planting these crops. The credits may be in the form of commodities, especially seed, which the Bank has had previously purchased in wholesale lots. The Ministry depends primarily upon STICA to provide technical assistance to farmers.

There are two significant changes over the past year in the agricultural policy and programs of the Ministry. The first, and most important in so far as STICA itself is concerned, is the expressed desire of the Minister to coordinate and integrate the operations of STICA within the Ministry. As a first step, in this integration, the Ministry, although extremely short of funds, has employed on a part time basis each of STICA's local project chiefs. The Vice Director of STICA, who is shouldering more and more responsibility, is second only to the Minister himself within the Ministry. This arrangement assures complete coordination of operations and is an important first step in the complete integration of the two organizations.

A second important change is a growing awareness within the Ministry of the need to take active steps to improve the status of farmers who have no legal title to the land they farm, with approximately 50% of Paraguayan farmers falling into this category. There is cause for concern that some of these corrective measures either taken or proposed by the Ministry would do more harm than good to the overall agricultural economy. Consequently, USOM has obtained the services of a land tenure specialist on a consultant basis to make concrete recommendations as to what could and should be done. Since rather complete reports on this subject will be submitted for use in the preceeding Conference on Land Policies and Programs, this subject will not be further elaborated here.

USOM agricultural activities are being revised and expanded to take into account the changing conditions and requirements of the country, and to provide guidance to the Ministry in developing an overall agricultural program. Each activity is aimed at a specific problem, with the overall program divided into three separate fields as described below:

A. Project Activities Carried out by STICA

a. Agricultural Extension

This project is being expanded as rapidly as funds and trained personnel become available, with 4-C work being an important and integral part of the project. An active National 4-C Club Council has recently been established which is giving strong support to the program. New activities to be undertaken by the Extension Service include a campaign based upon education, demonstration and training to control the leaf-cutting and and assistance with marketing of farm products.

b. Crop Development

Heavy emphasis is being placed upon variety testing and research in pasture and forage crops, at the Agricultural Experiment Station at Caacupe. Activities in production and distribution of high quality seeds are being increased. Improved varieties of sugar cane, pineapples, and numerous species of introduced vegetable crops, tested at Caacupe and widely distributed to farmers have made substantial contributions both to the diet of the population, and to the income of farmers.

The Soils Laboratory, the Seed Laboratory and the Plant Pathology Laboratory will be turned over to the College of Agronomy early in 1961 as a first step in concentrating research activities in the College.

c. Livestock Development.

Research, training and demonstration activities at Barrerito Ranch have been concentrated on a 300 Ha. plot set aside for that purpose. In these demonstrations, emphasis is being placed on pasture management pasture improvements, and the establishment of improved weaning pasture.

A second phase of the livestock development program us the widespread distribution of improved bloodlines through artificial insemination. The demand for this service continues to expand, with more than 9,000 services being performed by STICA during the past breeding season. A number of the more progressive ranchers have established their own artificial insemination station, with advice from STICA trained technicians, and the number of services on private ranches now exceeds the number performed by STICA.

d. Forestry

An experimental nursery of native and introduced species is rapidly being developed. Surprisingly it was found that a considerable demand exists for the seedlings produced. Several of the introduced species, particularly slash pine, hybrid poplars and the carob tree from the Mediterranean area, are showing promise, and plantings will be increased next season.

Working in cooperation with the Industry Division of the Mission, technical advice is given to wood using industries and attemps are made to improve marketing of products.

e. Agricultural Education

Agricultural education, badly needed in Paraguay, will receive an important stimulus when the contract with Montana State College actually gets underway early in 1961. Participant training, both in the U.S. and in third countries, is also being expanded.

B. Activities in Economic Fields.

It has been apparent for some time that agricultural production, in comparison to population growth, has been lagging far behind, in spite of a small, but sound technical assistance program that has been in operation for more than 17 years.

Consequently, the Agricultural Division of USOM has undertaken a number of surveys and studies to pinpoint bottlenecks to increased production and to offer suggestions, upon request and through appropriate channels, to interested parties such as the U.S. Embassy, the Ministry and credit institutions as to how these bottlenecks might be overcome, These studies have focused attention upon the following:

a. High import taxes on production requisites such as machinery, fuel, seed, insecticides, fertilizer,veterinary supplies, etc. virtually prohibits their use.

b. There is a relatively heavy export tax on agricultural and forestry products, restricting international trade in the commodities and resulting in low internal prices.

c. Internal prices of foodstuffs are controlled at a very low level; for some items directly, i.e. meat, wheat and sugar, for others indirectly but effectively, by export taxes on commodities in surplus.

d. Marketing regulations and delivery quotas hamper the beef industry, the most important sector of the Paraguayan economy.

e. Although the economy is based upon agriculture, only 2.9% of the national budget is allocated to agriculture.

f. Markets are poorly organized with the middleman receiving a disproportionate share of the consumers' dollar.

g. Urgently needed production and marketing credit is virtually non-existant. When credit is obtainable, interest rates generally are exhorbitant. A consultant on agricultural credit is currently studying this situation and is expected to make concrete recommendations.

As a result of the above factors, there is little or no profit in farming and incentives to increase production are lacking.

F. Activities in Social Fields.

A land tenure consultant from the USDA is currently studying problems arising from the fact that approximately 50% of the farmers in Paraguay are classed as squatters, having no legal title to the land they farm. A substantial number of other farmers have sub-marginal units, which also creates social problems. These are potentially the most volatile groups in agriculture and the Ministry is anxious to undertake remedial actions. Since this subject, however, is covered in detail in other reports, it will not be pursued further at this time.

P E R U

PROGRAM ACTIVITIES

The last few months have been a period of transition in the joint Peru/U.S. Agriculture Program. Although the program continues to operate under the same basic agreement and the same project agreements, this has been a period of change. As reported at the last agriculture conference, the most important recent development affecting USOM participation is the new law signed by the President on March 10, 1960, establishing Servicio de Investigación y Promoción Agraria (SIPA) as a permanent semi-autonomous agency of the Peruvian Government. It is anticipated that a new basic agreement will be signed on or about December 31, 1960. Before this is done, however, the organization of the governing body or board of SIPA must take place and a Peruvian Director must be appointed.

The Agricultural Servicio has been taking advantage of the intervening period to make certain changes in its organization. The changes are concerned mostly with coordination and consolidation of activities. Although research and extension have heretofore been part of the Servicios they have been administered as two separate projects. Each project has had its own program, its own specialists and its own separate funds and administrative office.

Activities in research nd extension are being coordinated. This is accomplished partly by housing subject matter specialists of both branches together. At the same time special projects with special funds are being integrated into the organization.

To cite an example: until now there were three distinct livestock administrative units operating within the Servicio. These were livestock research, livestock extension, and livestock promotion, each one having its own specialists and separate plans of work. Now all these specialists have been brought together in one department with a technical head serving as coordinator. Thus much duplication of effort is avoided and an opportunity is being provided for technicians to exchange ideas and develop a better program.

Agricultural information was previously handled largely on a project basis. The USOM information Media Officer served as Head of the Extension Information Division. Agricultural Research had a separate information specialist. These activities are now being reorganized and consolidated as an agricultural information division.

Increased attention is being directed toward the National University of Agriculture at La Molina. In October the University was reorganized and four main departments were established. These Departments are Agricultural Economics, Agronomy, Soils - Engineering and Livestock. A Rector was elected for a five year term. The University Rector and Department Heads are expected to move ahead with broad programs. They have requested USOM to provide technical guidance for an overall curriculum, an estimate of needs for faculty, and estimate of needs for a graduate school, a building plan and a financial plan. There has been no new building on the University Campus since the 1930's although the University now has four times as many students.

The Contract with the College of Agriculture at the University of North Carolina, recently approved and to be signed December 31, 1960, was enlarged in scope and provides assistance to the Peruvian National University in addition to Research. Plans are underway, at the request of all concerned, to take definite steps to help coordinate the activities of the University of Agriculture with the work of Agriculture Research and Extension. This will be done through agreements as the University is an Autonomous Institution and not a direct part of either the Ministry of Education or the Ministry of Agriculture.

At the last Food & Agriculture Officers Conference, Peru chose "Surveys for Land Development" as an example of a successful project. Since then this project has increased considerably in emphasis and importance. In July 1960, the Government of Peru set aside a sum of $52.5 million for development purposes by the Development Loan Fund and the Export Import Bank. This includes 7.4 million for establishing a central credit institution for granting home loans; 32.6 million for penetration roads; 10 million for credit needs of future colonizers and 2.5 million for increasing the capital resources of the Industrial Bank, (a state development bank). However, the actual granting of these funds is dependent upon satisfactory presentation of actual project plans. The Agriculture Servicio has been requested to assume the primary responsibility for preparing plans for the justification of the access roads which means evaluating the land potential in the jungle areas that are to be reached by the roads and also making general plans for colonization and settlement. Preparing such plans is a cooperative effort requiring the coordinated efforts of specialists in soils, agricultural engineering, forestry, agriculture economics and related fields. USOM Specialists in the fields of soils, forestry, agriculture economics and economic geography are participating in these surveys. All except the economic geographer was recruited for regular assignments, however, the emphasis given these surveys has placed them in top priority. It is anticipated that within the next few years it will be necessary to make land resource surveys in a large section of the Selva. Loans already under consideration will make it necessary to make complete surveys for six areas to be opened up by access roads. It is anticipated that a land tenure specialist may later be added to this team.

S U R I N A M

Report of Changes Occurring in Program of Cooperating Country

Changes occurring in Surinam's agricultural program must be defined in terms of "degree" of change. In interpreting this statement, we come to understand that a change involves not only the physical and material, but also change in attitude, knowledge, and skill as well, which are equally, if not more important especially in the early stage prior to establishment of a physical or material change, and in the follow-up or stabilization period of a program which has resulted in a physical or material change.

Following this reasoning, agricultural program changes occurring in Surinam are considered encouraging and progressive when there is evidence of positive results in either attitude, knowledge, or skills which serve to move the program in a more favorable direction.

In analyzing the agricultural program of the Surinam government, it is important to recognize that it has been very highly specialized in its approach. This has contributed greatly to a loosely held together organization with poorly developed program coordination and direction.

Changes have occurred, however, and are continuing to occur to various degrees.

The cooperatively (inter-service) planned "Agricultural Production Plan", which was adopted by the Department of Agriculture, and subsequent activities which have been carried out, as well as those which have been initiated in relation to this Plan, has been one of the major program changes and has been the spark needed to ignite the flames of recognition that other necessary related changes are indispensible.

Impact of this change has been far reaching. The Production Plan is based (as accurately as statistics available permit) on calculated and projected needs of an expanding population over the next five years. Production factors and management of these factors were not taken into consideration in the planning. Therefore, since the successful promotion of a program designed to put the plan into action necessarily must take into consideration other essential aspects of program development besides production, many related problems were ready to be brought to light.

Among these problems was the recognized need for an expanded marketing program to balance an accelerated production program. With the recognition of this problem also came the realization that the highly specialized technical approach which had been followed was not flexible enough to have supplied technicians and specialists with the broad knowledge and skills to coordinate such other minor, yet no less important, problems such as lack of efficient agricultural mechanization, lack of transportation facilities, inefficient land development schemes, inadequate research programs, incomplete extension programs, and lack of sufficient research in economics of production and marketing, and their relation to intelligent management of the factors of production.

These changes, brought about and initiated through the program of the Surinam Department of Agriculture, followed a pattern parallel to but lagging slightly behind the program of advisory, training, and demonstrational technical assistance introduced by the Agricultural Division of SABTS, the joint program developed through financial contributions of both the USOM and Surinam government and United States technicians supplied by the USOM. It was due largely to advisory pressures brought to bear through the Agricultural Division of this Servicio that attitudes were changed and a desire created for a directional production plan.

Activities developed through the Joint Program approach pointed to new problem areas by correctly demonstrating activities which could not stand alone. Research work in horticulture and vegetable crops pointed to a lack of research program coordination. Establishment of a Home Economics and Rural Youth program in the districts of Surinam pointed to lack of trained personnel and lack of research results with which to train them. Problems in nutritional deficiencies were brought out. An accelerated extension program pointed to lack of coordination between extension and research.

Introduction of an agricultural information program by the Servicio pointed out glaring examples of lack of external and internal communications and a need for a better balance of and functional reorganization of the Department of Agriculture to better facilitate communications and programming. Development of a limping system of agricultural extension specialists gave further proof of lack of coordination between the extension and research aspects of the country's agricultural program. The introduction of credit into the agricultural picture through advisory and pilot project approach brought to light the severe lack of ability of the agricultural population to manage such credit and exposed the need for placing more and more emphasis on management, not only the management ability of the average farmer, but on the balancing of, and most optimum degree of integration of land, labor, and capital, industry-wide.

A demonstrational farm-housing program, conducted through the Joint Program, pointed out the feasibility of a program designed to fill the need for improved rural housing. Advisory assistance to the fisheries program of the Department of Agriculture has brought marketing, storage, and distribution problems, as well as production problems, to the attention of those concerned.

The net result of these Joint Program activities has been to effect a change in attitude toward acceptance of various program approaches which will coordinate its research, development, extension, production, and marketing aspects.

Reorientation of USOM Activities (through Joint Service) to Provide Better Guidance to Country Program

Changes in Joint Service Program emphasis and direction have certainly resulted from attitude changes, and program changes occurring in Surinam agriculture.

As a result of the gradual change in attitude of the Department of Agriculture in recognizing that deficiencies did exist in their highly specialized approach, more and more confidence was placed in the advisory assistance, training, and technical assistance available through the Joint Service and the USOM. Requests for assistance became the rule rather than the exception, as was the case earlier.

Assistance was requested in the area of plant introduction, specifically rubber. Observation tours were arranged for specialists dealing with crop storage problems, principally rice. Observation study tours were arranged in connection with needs, unanswered problems, and inexperienced personnel appearing in the field of agricultural education.

Exposures to consumer education, marketing, and banana production practices were also made available to round out theexperiences of otherwise qualified local technicians through study observation trips arranged by the Servicio. These and other activities marked the beginning of broader recognition of need by the Department.

Among these requests, both formal and informal, came the question of assistance in redefining the problems. Thus began the task of correlating results and information previously acquired directly and indirectly through joint program activities. It was very obvious that a great many questions were still unanswered. To find these answers, a study of the fishing population was conducted and an exploratory fish production program was outlined and initiated. People in Surinam lacked protein and neededfish. Economic aspects of the agricultural industry were studied through TDY assistance to a United States technician which pointed to problems in departmental function.

The change in attitude of the Department toward looking at the total program, coupled with the policy of the Joint Program of "training the trainer" to develop a free-thinking individual with experiences, knowledge, and skills to coordinate the various aspects of the agricultural program to move in one direction, is spelling measurable progress.

For example, all districts are now staffed with Home Demonstration Agents with 40 women's groups meeting weekly. Fifty-seven voluntary unpaid local leaders are teaching project material classes in 42 4-H Clubs. A farm and home unit approach has been adopted by the Extension Service as a whole. Some 700 fishermen are beginning to learn new techniques for producing and marketing fish.

Through an accelerated information program, a common orientation of farm problem and successes is reaching a greater proportion of the farm population than ever before. The urban consumer is able to buy more protein in the form of sea fish than before. Introduction of improved poultry and small animals (rabbits, goats) is beginning to make a noticeable impact on available protein in rural areas.

Personnel in key positions in the Home Economics, Agricultural Engineering, Agricultural Education, and Agricultural Statistics fields are now being trained in the United States and Puerto Rico to enable them to effect further coordination in government programming.

Although the full measure of the success of the Surinam program will depend on the outcome of programs designed to meet currently recognized problems here in the interim, we must say the future looks bright.

WEST INDIES AND EASTERN CARIBBEAN

THE USOM AGRICULTURAL PROGRAM IN THE WEST INDIES

I. Agricultural General

A. Strengthening the existing extension services in the unit territories to more effectively disseminate useful and practical information to farm families and develop farm youth programs similar to the 4H Clubs in the United States.

B. Establishing better soil conservation practices by teaching and demonstration in:

1. Land-use classification.

2. Demonstration of proper design and establishment of soil conservation structures, including earthen dams and sprinkler irrigation systems.

3. Planning and design of watershed control projects in the small valleys to prevent severe damage from excessive rainfall and wind.

4. Assisting the ICTA in establishing demonstration plots in the unit territories to illustrate the proper use of fertilizers, introduction of new fertilizers, introduction of new crops and improved varieties.

C. Improving marketing services.

D. Improving credit facilities.

E. Promoting the relocation of farm families on government lands now in possession of the government and on those crown lands which will be made available for settlement when they are made accessible by new roads.

F. Providing guidance and technical assistance in improving the agricultural information functions of the extension service.

G. Providing technical assistance to the Federal Ministry of Agriculture and the ICTA in developing a coordinated agricultural advisory service to the departments of agriculture in the unit territories.

H. Providing in-service training for agricultural workers.

The small islands are separated from each other by comparatively long distances. They average about 250 sq. miles and have populations of about 60,000 to 85,000.

These territories are dependent upon agriculture as their chief source of revenue. Consequently, they do not have the financial base to provide complete departments of agriculture. USOM/WIEC could not assign a complete technical staff to each island.

Therefore, this project will attempt to achieve its technical objectives by providing the larger units with U.S. technicians who have a general background in agricultural extension and a specialty in some field of technical agriculture.

The technician will work in the Department of Agriculture in the territory to which he is assigned as na Extension Advisor. As the need for his special services (agricultural engineering, livestock, credit, etc.) arises in other territories, he will be sent there on special detail to plan the program. In those cases where Mission staff members do not have the necessary technical skill to plan projects, consultants from nearby Missions or from Puerto Rico and the United States will be required on a short-time basis.

Each Extension Advisor will be expected to assume a similar role in the territory of his assignment to that of a country farm advisor in the United States. He will have as his counterpart the Agricultural Superintendent and will assist him in the planning and execution of agricultural development programs in the territory.

In some fields, such as Federation-wide marketing, credit, and agricultural information services, highly qualified technicians may be assigned to the Ministry of Agriculture or the Imperial College of Tropical Agriculture (ICTA) to work on an area-wide basis.

II. Agricultural Education

A. University Agricultural Education

This project provides for preliminary surveys and studies to determine the proper methods of assisting the Imperial College of Tropical Agriculture in expanding its facilities to serve the agricultural interest of the Federation more effectively. The ICTA has recently been established as a branch of the University College of the West Indies. Consequently, it has an opportunity to increase its influence upon the agricultural economy of the area by broadening its services in support of the extension services of the unit territories of the Federation. It is proposed in this project to offer the ICTA assistance in expanding its facilities to meet its responsibilities as an effective force in agricultural and community development.

It is proposed to have a team of two officials from a recognized Land Grant University in the United States visit the ICTA as consultants. They will advise the Mission and the College on the most effective methods of achievement of its objectives and define the role of ICA in the process. Two officials of ICTA should return to the Land Grant University with the consultants to observe the operation of the United States university and determine, in cooperation with ICA, the most effective means of implementing a program of cooperative technical assistance.

If direct hire of technicians is not determined to be practical, a university contract may be in order. The strengthening of the ICTA is one of the high-priority projects in the Mission program of providing the developing Federation with proper institutional facilities to promote social and economic development.

B. Secondary Agricultural Education

In cooperation with the government of Dominica and Windward Islands/ American Cooperative Service a vocational agricultural department is being added to the Roseau Boys Secondary School.

The WIACS will furnish the funds to build and equip a building 40' x 50' as a part of the industrial arts building being constructed from funds supplied by special assistance grants. Dominica will furnish one teacher, who is now in the United States for training, and ICA will furnish one U.S. technician to provide technical guidance in establishing the school

The objective of this school will be to provide training for persons preparing to go into farming and for persons seeking employment in the Dominica extension service.

The U.S. technician assigned to this department will also serve as advisor to the industrial arts section of the vocational school.

III. Agricultural Credit

This project is designed to assist the unit territories of Dominica and Grenada in establishing farm credit systems. These governments are interested in providing credit for farmers for the following:

A. Crop and livestock production.

B. Land clearing and establishment of family-size farms.

C. Establishment of cooperatives for the storage and marketing of farm produce, etc.

D. Resettlement of farm families on productive farm units.

E. Purchase of farm lands.

As a prerequisite to the successful establishment of a sound credit system, it is necessary that studies of the need and credit worthiness of the farmers be made. To assist in these studies and surveys USOM/EC has requested the services of a farm-credit consultant to spend 90 days with the Mission to advise the governments of Grenada and Dominica and the Mission on the most logical approach to their farm-credit problems.

The final objective of this project is the establishment of a Federation-wide farm-credit system. The experience and background information gained from the studies of credit in the smaller territories will serve as guides to the establishment of the Federation-wide system.

The majority of the loans to be made under any credit system will require close supervision. Supervised credit patterned after the Farmers Home Administration seems to be a logical system for the Federation.

PROBLEMS IN ADMINISTRATION OF THE AGRICULTURAL PROGRAM

1. The major problem in the implementation of the agricultural program has been lack of personnel.

Since the last conference in Lima one technician has actually arrived and settled in St. Lucia. Others have been assigned but for various reasons have been reassigned to other posts.

2. The change from a dependent to independent country has brought about a major shift in emphasis in agricultural policy. More responsibility for planning and carrying out of agricultural programs now rests with the local governments of the unit territories. In most instances these departments are not staffed with sufficient well-trained personnel in either planning or technical fields. Consequently, planning for agricultural development reflecting a changing emphasis from schemes for export crops to self-sufficient family-centered farm planning to meet the increasing needs of the islands for food products is difficult.

3. Institutions having strong agricultural college extension and research services, farm-credit system, and secondary agricultural educations are lacking on a Federation basis. One of the major objectives of technical assistance will be to encourage the development of these institutions to serve the agricultural community.

4. The redistribution of land in several of the small islands is a major problem. Some attempts have been made by governments to purchase large estates and reallocate the land to small farmers. These efforts have been scattered and the success varied. In Dominica and St. Vincent government lands remain to be distributed as soon as roads are built.

   The ICA program will provide some of the research results necessary to plan the shift from export crops to crops for domestic consumption and the land use and farm planning necessary to determine economical farming units. Improved extension services will help in land resettlement also. The major responsibility for land reform in St. Lucia, however, will rest with the legislative authorities to create the legal basis for consolidation of holdings.

5. Lack of basic knowledge of the socio-economic backgrounds of the people of the unit territories and the current shift to Federation with its resultant lack of clear-cut lines of administrative authority make planning of agricultural programs difficult.

PROGRAM ACHIEVEMENTS IN THE WEST INDIES

The Food and Agricultural Officer of USOM/EC has also served as Director of the Windward Islands-American Cooperative Service. This Service is a joint fund operation in cooperation with the Federation government. It was established to form an organization with legal status for the implementation of technical assistance programs in the Windward Islands. In the early stages of program-planning major emphasis was placed upon education, agriculture, and highway training. In the field of agriculture major emphasis has been placed upon training of West Indian personnel to strengthen the extension services of the islands.

The following seminars have been held:

1. Extension seminar in Grenada

   a. Date - October 6 - 10, 1958.

b. Parcicipants - All extension officers
c. Staff-
John Heppler - USOM/Jamaica
Victor Bowman - USOM/EC
Charles Hutchins - Director, coordinated agricultural services, Jamaica
Nevile Gayle - Audiovisual Specialist, Jamaica Agricultural Society
Donald G. Curry - Food and Agriculture Officer, USOM/EC
d. Subject Matter -
Philosophy of extension
History and organization of extension
Audiovisual workshop (each afternoon)
Program planning
Local leadership
Meetings, tours, workshops
Qualifications of extension workers
Training extension workers
The sociological basis of extension work
Evaluating the extension program

2. Extension seminars were held in St. Lucia, St. Vincent, and Dominica

The length of the seminars and the program were similar to the activity held in Grenada. The degree to which the information taught at the seminars has been applied in the various islands has depended upon the previous interest in extension existing in the territory. In all instances the seminars were well received and some improvement in extension techniques is evident. The Mission has not had the personnel to effectively follow through in the work of the seminars.

3. Marketing and Agricultural Engineering in Montserrat

Mr. Victor Bowman, ICA technician in agricultural marketing, assisted the government of Montserrat in conducting trials for tomato production. Results of these trials established the possibility of producing tomatoes commercially in the island. Consequently, a tomato-canning industry has been established by a Canadian firm.

Mr. McKitrick designed and assisted in the construction of an earthen dam in Montserrat. This structure was successfully completed and the flood control and irrigation features are functioning satisfactorily.

4. Corn trials in Antigua and St. Kitts

In cooperation with the University of Puerto Rico, variety trials for the improvement of corn quality were conducted in Antigua and St. Kitts during the 1959-60 growing season. Varieties of hybrid and open pollinated corn from Cuba, Puerto Rico, Barbados, Columbia and Mexico were compared with local varieties. Results of these trials have not been published. Computations are now being made by the University of Puerto Rico.

5. Soils Seminar

A comprehensive seminar in soil science was held in St. Vincent, August 15-25. Participants came from each of the Windward Islands. The following subjects

were covered:

a. Soils of Puerto Rico
b. Soils of Windward Islands
c. Land judging
d. Soil surveys
e. Farm planning
f. Soil conservation districts
g. Extension methods in soils.

The instructors were:

a. Juan Juarez - Soil Scientist, Puerto Rico
b. Angel T. Berrios - Extension Soil Conservationist, Puerto Rico
c. Ian Twyfors - Agronomist/ICTA, Trinidad

This seminar has been completed reported to ICA/W. It is evident from favorable responses received and observed and application of the principles taught that the seminar was highly successful.

6. Soil Conservation and Irrigation in St. Lucia

Mr. John Elliott arrived in St. Lucia in late May 1960 to begin his two-year assignment as extension advisor and soil conservationist. Since his arrival he has accomplished the following:

a. Established a demonstration area in Vieux Fort for the purpose of conducting irrigation and varietal trials in vegetable crops.

b. In cooperation with WIACS completed the purchase and setting-up of sprinkler irrigation equipment for a 20-acre tract.

c. Assisted in conducting a six-week course for agricultural extension workers.

d. Designed the trial plots for testing various types and varieties of vegetables.

e. Advised the Ministry of Agriculture in setting up a soil-conservation area.

f. Worked as a counterpart to the Superintendent of Agriculture and the Director of Extension in program planning.